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Bellmon Estimation Studies
for Title II (USAID-BEST)



USAID OFFICE OF FOOD FOR PEACE HAITI USAID-BEST ANALYSIS

MARCH 2013

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Front cover: (Left) Haiti produces a variety of beans—this photo shows some of the different types available for sale. Limbé, Haiti, January 2013. (Right) This woman stands in front of her stall that sells a variety of the brand name edible oils, such as Mazola, Rika, and Gourmet. Croix-des-Bouquets, Haiti, January 2013.

Back cover: Bags of locally produced rice and beans sit ready for sale. Local black beans, shown in the center, are the most preferred in Haiti. Croix-des-Bouquets, Haiti, January 2013.

Photos by Fintrac Inc.

PREFACE

During the months of December 2012 to February 2013, the USAID-Bellmon Estimation Studies for Title II (USAID-BEST) team undertook a study of the current state of agricultural markets in Haiti to inform USAID food assistance programming decisions.

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ACRONYMS AND NOTES

ACP	General Community Worker (<i>Agent Communautaire Polyvalent</i>)
ACS	Association of Caribbean States
ACF	Action Against Hunger (<i>Action Contre le Faim</i>)
AGD	General Administration of Customs (<i>Administration Générale des Douanes</i>)
APN	National Port Authority (<i>Autorité Portuaire Nationale</i>)
ARC	American Red Cross
BDM	Office of Monetization (<i>Bureau de Monétisation</i>)
BEST	Bellmon Estimation Studies for Title II
BFS	Bureau of Food Security
CARE	Cooperative for Assistance and Relief Everywhere
CARICOM	Caribbean Economic Community
CARIFORUM	Caribbean Forum of the Africa, Caribbean, and Pacific states
CBI-II	Caribbean Basin Initiative
CDAI	Departmental Centers for Storage and Input (<i>Centres Départementaux d'Approvisionnement en Intrants</i>)
CDSO	Crude Degummed Soybean Oil
CFI	Center for Investment Facilitation
CFW	cash-for-work
CIF	Cost, Insurance, Freight
CNSA	National Committee for Food Security (<i>Coordination Nationale pour la Sécurité Alimentaire</i>)
COMTRADE	Commodity Trade Statistics Database
CRS	Catholic Relief Services
CSB	Corn Soy Blend
DEV	Development Program (WFP)
DHS	Demographic and Health Survey
DLCA	Digital Logistics Capacity Assessment
DR	Dominican Republic
DRW	Disaster Relief Warehouse
EDF	European Development Fund
EFSP	Emergency Food Security Program
EMMA	Emergency Market Mapping and Analysis
ENSA	National Food Security Survey (<i>Enquete Nationale de la Sécurité Alimentaire</i>)
EOC	Emergency Operations Center
EPA	Economic Partnership Agreement
EU	European Union
FAES	Economic and Social Assistance Fund (<i>Fond d'Assistance Économique et Social</i>)
FAO	Food and Agriculture Organization
FEWS NET	Famine Early Warning System Network
FFE	Food for Education
FFP	Food for Peace
FFPr	Food for Progress
FFW	food-for-work
FOB	Free on Board
FY	Fiscal Year
GB Group	Gilbert Bigio Group
GDP	Gross Domestic Product
GoH	Government of Haiti
GoJ	Government of Japan
GoV	Government of Venezuela
GSP	Generalized System of Preference
GSM	Global System for Mobile Communications
ha	Hectares
HRW	Hard Red Winter
HTG	Haitian Gourdes
HUHSA	<i>Huileries Haitiennes, SA</i>
HUNASA	<i>Huilerie Nationale, SA</i>

HV	Haiti Vision
IDB	Inter-American Development Bank
IDP	Internally Displaced Persons
IHSI	Haitian Institute of Statistics and Data Processing (<i>Institut Haitien de Statistique et d'Informatique</i>)
IICA	Inter-American Institute for Cooperation on Agriculture
IMF	International Monetary Fund
IPP	Import Parity Price
IPPP	International Public Port of Port-au-Prince
ISPS	International Ship and Port Security
kg	Kilogram
kms	Kilometers
KYC	Know Your Customer
LCH	<i>Les Céréales d'Haiti</i>
LMH	<i>Les Moulins d'Haiti</i>
LRP	Local and Regional Procurement
MARNDR	Ministry of Agriculture, Natural Resources, and Rural Development (<i>Ministère de l'Agriculture, des Ressources Naturelles et du Développement Rural</i>)
MCHN	Maternal and Child Health Nutrition
MAST	Ministry of Social Affairs and Labor (<i>Ministère des Affaires Sociales et du Travail</i>)
MNO	Mobile Network Operator
MSPP	Ministry of Public Health and Population (<i>Ministère de la Santé Publique et de la Population</i>)
MT	Metric Tons
MYAP	Multi-Year Assistance Program
NFI	Non-food Item
NGO	Non-governmental Organization
NRM	Natural Resource Management
NSMP	National School Meals Program (<i>Programme National de Cantines Scolaires</i>)
OFDA	US Office of Foreign Disaster Assistance
OCHA	UN Office of Coordination for Humanitarian Affairs
PM2A	Preventing Malnutrition in Children Under 2 Approach
PPP	Purchasing Parity Power
PRRO	Protracted Relief and Recovery Operation
PVO	Private Voluntary Organization
RFA	Request for Applications
RN	National Route
RUSF	Ready-to-Use Supplementary Food
SIM	Subscriber Identity Module
SMS	Short Message Service
SFB	Soy-Fortified Bulgur
SO	Strategic Objective
sq. m	Square Meters
TEU	Twenty-Foot Equivalent Units
TTM	Tcho Tcho Mobile
UN	United Nations
UNDP	United Nations Development Programme
US\$	United States Dollar
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
USG	United States Government
WASH	Water, Sanitation, and Hygiene
WB	World Bank
WHO	World Health Organization
WSB	Wheat Soy Blend
WV	World Vision

Exchange rate: Exchange rate used in this report - US\$1 = 42.5 Haitian Gourdes (HTG)

Figure I. Map of Haiti



Source: United Nations, 2012.



CHAPTER I EXECUTIVE SUMMARY

A woman stuffs bags of rice for delivery to wholesalers who will ship them to the market. Pont Sondé, Haiti, January 2013.

Photo by Fintrac Inc.

I.1. INTRODUCTION

The Bellmon Estimation Studies for Title II (USAID-BEST) team undertook a study of the current state of agricultural markets in Haiti to inform USAID food aid programming decisions. This report presents the findings from desk research and field work conducted during December 2012-February 2013.

This Executive Summary provides a synopsis of the six topics covered in more detail in the respective chapters of the report.

I.2. OVERVIEW OF FOOD SECURITY PROGRAMS

For the past decades, the US government (USG) has provided substantial assistance to Haiti. Food aid peaked for USAID in fiscal year (FY)10 at nearly 153,000 metric tons (MT) in the aftermath of the earthquake, and has since significantly declined. During FY11-13, USAID supported an average 12,053 MT per year of distributed food aid.

MYAP partners. Currently, ACDI/VOCA, Catholic Relief Services (CRS), and World Vision (WV) are implementing Multi-Year Assistance Programs (MYAPs) in Haiti, and are expecting to finish activities in September 2013. Together, the three partners have averaged approximately 9,000 MT per year of distributed food aid from FY12-13. ACDI/VOCA operates in the Southeast Department, CRS operates in Grand Anse, South, and Nippes Departments, and WV operates in West, Artibonite, and Center Departments.

EFSP. Since the 2010 earthquake, USAID also provided US\$70 million to support local and regional procurement (LRP)/cash and voucher programming through Emergency Food Security Program (EFSP) grants. Approximately half of this total amount supported WFP activities while the other half went to various private voluntary organizations (PVO)s.

USDA/FFE. USDA will distribute over 30,000 MT of food aid under its Food for Education (FFE) programs in FY13. Ready-to-use supplementary food represents almost 60 percent of the total tonnage.

Monetization. Since 2010, USAID has not funded monetization of wheat or wheat flour. In FY12, USDA completed monetization sales of soybean meal and Crude Degummed Soybean Oil (CDSO) in the Dominican Republic (DR) for two Food For Progress (FFPr) grants in Haiti.

WFP. WFP/Haiti has distributed large quantities of food aid over FY08-12, averaging over 70,000 MT per year during that time period. Distributions peaked in 2010, in response to the January earthquake, and declined to approximately 40,000 MT in 2012. WFP/Haiti's two-year Protracted Relief and Recovery Operation (PRRO) was originally scheduled to run from 2011-12, but will extend to June 30, 2013 with additional funds. Programmatic activities under the ongoing, extended PRRO include general food distributions, Maternal Child and Health Nutrition (MCHN) initiatives for pregnant/lactating mothers and children under five, supplementary feeding for People Living

with HIV/AIDS and Tuberculosis patients, school feeding, seasonal distributions and food-for-work (FFW)/cash-for-work programming. School feeding activities will transition to WFP/Haiti's country development program in July 2013. For the current 2012/13 school year, the school-feeding program reaches approximately 685,000 students in 2,142 schools. WFP additionally runs two pilot LRP programs: 1) local foods for schools in Petite Rivière de Nippes commune; and 2) local milk for targeted schools modeled after a Government of Brazil initiative.

Government of Haiti (GoH). The GoH has initiated a number of programs to improve food security and health in the aftermath of the 2010 earthquake. Down with Hunger (*Aba Grangou*) is a GoH strategy that aims to halve the number of those suffering from hunger by 2016, and to fully eradicate hunger and malnutrition in Haiti by 2025. Examples of two programs that fit under this broad strategy include 1) Dear Mother (*Ti Manman Cheri*), a conditional cash transfer initiative that reaches vulnerable mothers with schoolchildren in urban/peri-urban areas of Haiti; and 2) Family Support (*Kore Fanmi*), which targets vulnerable families through general community workers.

USAID. USAID Haiti awarded a US\$126 million/five-year agricultural project, the Watershed Initiative for National Natural Environmental Resources, to Chemonics in 2009. The project targets watershed management, complementary large-scale agricultural production, processing, and commercialization in the corridors of Cul de Sac, Saint Marc, Mirebalais, and Saut d'Eau regions in the center of the country.

IDB. The Inter-American Development Bank (IDB) runs two large food security programs: 1) The Natural Disaster Mitigation Program in Priority Watersheds (US\$30 million, 2010-14), and 2) Technology Transfer to Small Farmers (US\$40 million, 2012-16).

Government of Venezuela (GoV). The GoV provided US\$369 million in assistance to Haiti in 2012 through the Petro Caribe program.¹

Community Based Organizations (CBOs). Notable quantities of food aid and other in-kind aid (e.g., medical supplies, school supplies) enter Haiti through CBOs, and particularly through missionary work.

Trends. Increased donor collaboration with GoH structures, coordination with USAID Feed the Future agricultural production programming, and school feeding programs that are increasingly using local food products are some of the important trends that will have important implications for implementing partners in the new Title II cycle.

¹ Embassy of Venezuela, 2013, Venezuela's Continuing Aid to Haiti. <http://venezuela-us.org/live/wp-content/uploads/2009/12/12.28.2012-Aid-to-Haiti.pdf>, accessed February 2013.



Rice fields in the Artibonite. Haiti, January 2013.

1.3. ADEQUACY OF PORTS, INLAND TRANSPORT, AND STORAGE

Ports. The two most important ocean ports are in centrally-located Port-au-Prince and northern Cap Haitien.

The USG brought in 8,230 MT of food aid in FY12, through the International Public Port of Port-au-Prince (IPPP) facility. WFP/Haiti imported 39,885 MT of food aid, through both the IPPP (approximately 2/3) and the Cap Haitien (approximately 1/3) port facilities.

Current total cargo handled in greater Port-au-Prince at the IPPP, Terminal Varreux, Port Lafiteau/Les Moulins d'Haiti (LMH), La Cimenterie Nationale, DINASA (Thor), and Terminal Abraham facilities was approximately four million MT as of January 2013 USAID-BEST field interviews.² This number represents a roughly 10 percent increase in tonnage handled collectively at all these ports.³ At IPPP specifically, the tonnage increased by an estimated 10 percent.⁴ Infrastructure improvements (e.g., repairs to docking facilities at the permanent and floating wharves) and more efficient operations which have reduced congestion since the 2010 earthquake have helped improve IPPP's overall performance. IPPP operations are also reported at full capacity as of January 2013, and further improvements are likely with increased investment and expansion.⁵

Roughly 90 percent of Haiti's total container imports arrive at IPPP.⁶ The National Port Authority-instituted port fees are roughly three times the regional average, and the port is roughly 1/3 as efficient operationally as other ports in the Caribbean

² Key informant, Port-au-Prince, January 2013.

³ Key informant, Port-au-Prince, January 2013.

⁴ Key informant, Port-au-Prince, January 2013.

⁵ APN (IPPP) field interview during USAID-BEST field trip, Port-au-Prince, January 2013

⁶ USAID-BEST, December 2011, Haiti USAID-BEST Analysis.

basin.⁷ Humanitarian organizations and key manufacturers⁸ receive cargo preferences, e.g., total container fees at IPPP are on average US\$855 per container, but humanitarian organizations/cargo pay a special rate of, on average, US\$705 per container.

The team recommends Title II commodities continue to enter through the IPPP. Despite possible corruption, increased costs, and low efficiency,⁹ the IPPP still possesses superior facilities nationally, better overall capacity, and preferred road infrastructure from the port to storage and distribution points for the current MYAP partners and WFP.

For Cap Haitien port, container fees are approximately US\$660-\$760 per container. Therefore, expected costs between IPPP (average US\$705 per container for humanitarian cargo) and Cap Haitien are similar, although Cap Haitien's expected costs are slightly less as of January 2013. If the new USAID development food assistance program focuses activities in the north of the country, awardees should consider bringing in Title II commodities directly through Cap Haitien.

Future programming for the new Title II cycle should monitor all port developments for potential logistics implications in the next program cycle.

Roads. Based on January 2013 field work, the USAID-BEST team found that certain main routes have significantly improved compared to conditions immediately after the earthquake. Notably improved routes over the past two-three years include: Port-au-Prince-Hinche, Cap Haitien-Ouanaminthe, Les Cayes-Les Anglais, Les Cayes-Jérémie, and National Route 2- Côtes-de-Fer. However, Haiti's road network can pose many obstacles, including lesser-maintained secondary and tertiary routes. Although the trucking sector is generally adequate for PVO transport needs on Haiti's main routes,¹⁰ trucking expenses for PVOs are significant and generally higher than for regular commercial purposes.¹¹

Storage. As of January 2013, PVOs report that storage is currently adequate for their normal operations. However, storage facilities at present do not have the capacity to respond to a joint GoH, international, and PVO effort if another large-scale humanitarian crisis occurs. Current storage capacity is as follows: WFP: 38,500 MT; ACDI/VOCA: 3,450 MT; CRS: 4,000 MT; and WV: 6,860 MT; the total amount for all current MYAP partners and WFP equals approximately 53,000 MT.¹² Excess private and public storage capacity is generally available in main departmental towns; this excess capacity is critical to ensure

7 Key informant, Port-au-Prince, January 2013.

8 Large companies importing cargo deemed by GoH as important for public and/or private sector activities may be given preferential treatment in unloading cargo at IPPP.

9 Key informant, January 2013, Port-au-Prince.

10 USAID-BEST, December 2011, Haiti USAID-BEST Analysis.

11 USAID-BEST, December 2011, Haiti USAID-BEST Analysis.

12 Field interviews with WFP, ACDI/VOCA, CRS, and WV, Port-au-Prince, January 2013.

available storage for future disaster response activities.

In general, Haiti's infrastructure is adequate for the operations of USAID Title II food assistance programming, but challenges still exist related to port operations, inland road transport, and storage. However, current MYAP and local partners have historically found solutions to existing constraints; therefore, the study team anticipates that future Title II partners should also be able to maintain adequate capacity for response to development and emergency needs during the next Title II cycle.

1.4. PROFILE OF COMMODITIES CRITICAL FOR FOOD SECURITY

USAID-BEST examined the market for five commodities (rice, beans, maize/maize flour, wheat/wheat flour, and edible oils) considered staple foods in the Haitian diet. The following summary of a more detailed analysis later discussed in Chapter 4 presents the basic findings on demand and supply, examines the market structure, conduct, and performance for each of these goods, and finally assesses whether future Title II programming should target each commodity in a food voucher system.



1.4.1 Rice

Rice is an important food security crop in Haiti, and has been since the initiation of liberal trade policies in the 1980s. In recent years, consumer demand for rice has significantly increased because of a change in diet and population growth. Haitians consume different types of rice (domestically produced and imported) mixed with pulses. With a per capita consumption of about 50 kg per year, current total demand for rice is estimated at 520,660 MT.¹³

13 MARNDR, 2005, *Identification de Creneaux Potentiels dans les Filières Rurales Haïtiennes: Riz, Mais, Sorgho, Haricot, Arachide, Pois Congo, Banane.*

Total rice availability in-country averaged 484,872 MT per year over the last four years; domestic production contributed about 16 percent of that amount. According to official data, domestic rice production rose from 77,112 MT in 2009 to 86,762 in 2011, but declined to an estimated 64,204 MT in 2012 because of a severe drought in most parts of the country and the destruction from Hurricanes Isaac/Sandy. On average, domestic production has remained relatively stable over the last decade despite substantial technical and financial assistance. However, rice imports have tremendously increased in the last 25 years.

Imported rice comes primarily from the US and is commercialized under at least ten brand names, with Tchako, Bull, and Mega being the top three. The import market is highly concentrated at the import and wholesale levels, but is competitive at the retail level. In 2012, three main importers based in Port-au-Prince accounted for 70 percent of the imports and they sell to a small number of large wholesalers. Although there is no legal barrier to enter the import market



Photo by Fintrac Inc.

A vendor sells cereals at a local market. Croix-des-Bouquets, Haiti, January 2013.

for rice, the three main importers have enough power to set imported rice prices. They tend to follow international prices, but there is the potential for collusion.

Domestic rice is distributed through regional *Madam Saras* who purchase their stocks in Pont Sondé and l'Estère to redistribute throughout the country. The market for locally produced rice involves many actors and is competitive at all levels. In the domestic rice market, demand and supply determine the price.

Future awardees should thoughtfully consider the targeting of local rice under the planned voucher system. Although local rice is available in large quantities, especially during harvest seasons, the higher quality rice varieties (*sheila* and *shelda*) are considered a luxury good and so may not be appropriate to include in a safety net program. However, other locally grown varieties can be considered for a voucher system. Therefore,

depending on the objectives of the program and the specific variety beneficiaries might buy, rice could be one of the local commodities targeted in a basket of goods tied to vouchers, at specific periods of high production.

1.4.2 Beans/Pulses

Beans are an important food crop in Haiti. Rural and urban households regularly consume beans, and prefer locally and commonly produced black beans. Imported pinto beans are the least preferred type of beans. Pigeon peas, cowpeas, and lima beans are also produced in large quantities, mainly in drier areas where beans cannot be grown (sections of the Central Plateau, North, Northeast, Northwest, and Southwest regions.) Total yearly production of these pulses was approximately 50,000 to 60,000 MT in the past 10 years, according to the Ministry of Agriculture, Natural Resources, and Rural Development (MARNDR, *Ministère de l'Agriculture, des Ressources Naturelles et du Développement Rural*). In 2012, 30,000 MT of pigeon peas and 25,000 MT of cowpeas were produced. If consumers cannot access any kind of beans, then they will eat pigeon peas and cowpeas as substitutes.¹⁴

Estimates for yearly per capita consumption of beans vary between 8 and 12 kilograms. According to MARNDR figures, total bean production in 2012 was around 80,000 MT. Local production meets the majority of demand for beans, e.g., in 2012, approximately 75 percent of beans consumed came from in-country production. The remainder that year was filled through commercial imports and food aid (primarily from the US). Drought and hurricanes in 2012 affected bean crops in rain-fed areas, damaged irrigation infrastructure and severely hindered local production of beans. Consequently, the 2013 seasons now face a pronounced shortage of seeds.

Official figures for imports of various types of beans suggest a total of 9,700 MT in 2012. Heavy losses from climatic events during the year seem to have created new informal import circuits mainly through the border markets of Jimani and Anse à Pitres which supply the southern peninsula. Imports of beans for food aid programs totaled 2,087 MT in 2012, representing 22 percent of official bean imports. Both the markets for local and imported beans appear competitive because a large number of actors participate at different levels of the production and distribution channel.

Future Title II partners could tie beans to a food voucher program as they are a high source of protein and are cheaper than products like milk or meat. There would be strong demand for beans in a voucher program, particularly because lower income families generally cannot afford to purchase the necessary quantities for a balanced diet. A high proportion of beans consumed are locally produced and increased demand could stimulate production if targeted support is provided and interventions are correctly implemented. Pigeon peas and cowpeas could also be included as an even cheaper source of protein but would only be available during the first six or seven

14 USAID-BEST, August 2010, Haiti USAID-BEST Market Analysis.

months of the year.

1.4.3 Maize

Maize is the most widely grown crop in the country and a basic food in most rural areas. Due to lack of irrigation and erratic rainfall, maize yields are typically low (<0.5 MT/ha on average).¹⁵ Since low-income households are the main consumers, maize is a major contributor to food security. The two main maize products are coarse maize meal and flour, both of which are derived from milling dry maize grain. Maize flour is finer and is typically cooked as porridge. Consumption of meal and flour is estimated at 150,000 MT for 2012, (15 kilograms per person) using Ministry of Agriculture local production figures.

Maize grain is processed in hundreds of small hammer mills generally located in the vicinity of rural markets. LMH is the only large industrial mill for maize and has been in operation since the end of 2011. It currently has a capacity of 35,000 MT of grain per year.

Maize meal and maize flour are the main imported products. Volumes of imported grain are less significant. True levels of maize meal and flour imports for 2012 are difficult to ascertain as it seems that informal imports from the DR seem to have greatly increased, and these numbers are largely under reported. According to official customs figures, the US is the main source of imports, followed by Brazil and the DR. Taking into account informal trade with the DR, total imports can be estimated at 20,000 MT for 2012, which is around 13 percent of total maize product consumption.

Thousands of marketing agents who have limited resources and investments characterize the domestic value chain. The multitude of players suggests a competitive market with no barriers to entry and exit. Additionally, at the wholesale level, no company is able to sell large quantities that would affect market prices. Local prices often depend on in-country production levels. Wholesalers and retailers set prices based on what other sellers mark down, or on some general knowledge of market prices. Local maize grain and meal prices follow production seasonality and are generally higher during the February-May period.

A USAID-supported national food voucher program could target maize meal and flour because these commodities are a cheaper source of calories than rice. Additionally, the maize market is transparent and there is satisfactory availability in most regions for more than eight months of the year. As imported maize products are generally more expensive, low-income beneficiaries would likely choose local maize over imported varieties to maximize calorie consumption; thus, the increased price for domestic grain could incentivize increased in-country production.

¹⁵ CNSA uses a higher estimate of average maize yields (1.0 MT/ha.). The team believes a lower estimate of 0.5 MT/ha, or even lower, is more realistic.

1.4.4 Wheat and Wheat Flour

Haiti does not produce wheat grain, but the country consumes substantial amounts of this staple. Per capita consumption for wheat grain is estimated at 14 kg per year.¹⁶

Total wheat imports reached 299,547 MT in 2009, declined significantly after the mill at LMH was damaged in the 2010 earthquake, and rebounded in 2012 to 204,052 MT.¹⁷ In 2012, LMH processed approximately 89 percent of all Hard Red Winter wheat available in-country, and a new mill, *Les Céréales d'Haiti* (LCH) filled the remainder.¹⁸

Of the total flour available in-country in 2012 (estimated at 193,766 MT), domestic flour production accounted for approximately 75 percent of this amount. With the two above mills operating at 70 percent of their capacity, demand for hard wheat grain is expected to reach about 250,000 MT per year in the next few years.¹⁹

There are no legal barriers to market entrance for those with access to capital, and the market for wheat flour is highly competitive at the wholesale and retail levels. Various traders import flour in the North and Northeast Departments, especially those from the DR. All categories of clients (wholesalers, retailers, and consumers) receive credit for commodities purchased.

A voucher system can be tied to domestically produced wheat flour with little effect on market price and availability. However, there may be more nutritious options for vouchers than non-fortified bread and baked goods. For example, locally produced crops such as tubers (yams, cassava, and sweet potatoes) can be directly consumed or also processed into flour. A food voucher scheme should also support these locally-grown tubers to stimulate in-country production and to offer more nutritious alternatives to wheat flour products.

Bulgur Wheat. Bulgur wheat is consumed in all regions in Haiti, though the volumes offered in the markets are relatively small compared to other cereals such as rice and maize. The Lebanese who settled in Haiti in the 19th century originally imported bulgur. Until more recently, bulgur consumption was primarily a northern habit. With the introduction of bulgur in food aid rations in the 1970s, bulgur consumption became increasingly common throughout the country.

Bulgur wheat is consumed as porridge and/or cooked with beans and other side dishes. Low- and medium-income households consume bulgur wheat for all types of meals (breakfast, lunch and dinner). School feeding programs often offer bulgur for lunch to children.

Food aid imports constitute the bulk of bulgur available in Haiti

¹⁶ CNSA, 2012, *Evaluation de la Campagne Agricole de Printemps 2012*.

¹⁷ Email correspondence with AGD, Key informant, Port-au-Prince, 2013.

¹⁸ Key informant, Port-au-Prince, 2013.

¹⁹ Key informant, Port-au-Prince, 2013.

(about 90 percent), while commercial imports make up about 10 percent of total supply. Recently, the supply of bulgur has decreased significantly in line with overall distributed food aid reductions.

The market for bulgur is highly competitive, similar to wheat flour, at the wholesale and retail levels.

There is strong evidence that beneficiaries, especially FFW beneficiaries, self-monetize bulgur wheat. Self-monetization of this cereal on the market may negatively affect the prices of substitute cereals. USAID should work with PVOs on the design and implementation of activities that include bulgur in the ration, and consider substantially reducing the use of bulgur wheat for development programs because of the market impact.

1.4.5 Edible Oil

Haiti is the largest consumer of edible oil in the Caribbean and Central America.²⁰ Edible oil consumption in Haiti is currently estimated at 10 liters (9.2 kg) per capita per year. This level has remained stable in the last three years despite the devastation to livelihoods following the earthquake. Haitians use edible oil primarily to cook sauce and grains prepared with oils, and fried or deep-fried foods. Frying and/or deep frying prevents food exposure to bacteria and toxins, which is particularly important because refrigeration is a luxury for most people.

Edible oil enters the country mostly through formal imports (70 percent), but informal imports account for 20 percent of the remainder and food aid the other 10 percent. While there is some potential for national production of edible oils, especially coconut oil, underinvestment and current consumer habits translate into national production contributing a negligible amount to overall supply. In 2012, imports of edible oil were estimated at about 100,000 MT (comparable to 2010 volumes). Domestic production and processing is almost nonexistent; although, two companies import different types of oil to blend for sale under their own brands.

The distribution structure of the edible oil market is pyramidal. Only two major importers, CARRIBEX and HUHSA dominate as they account for 80 percent of the edible oil imports market. These two major importers sell edible oil at the second and third levels to more than 400 wholesalers and semi-wholesalers. CARRIBEX alone has more than 200 regular customers. The number of market players at the retail level ensures competitiveness.

No formal regulations limit market entry. Anyone can import and sell any type of oil. However, as two main importers control most of the oil market in Haiti, smaller, entry-level actors at the import, and, possibly, wholesale level may struggle to compete. Because of their volume, the two major importers may influence the price to obtain the largest margin. At wholesale, semi-wholesale, and retail levels, no one actor appears to exert any market power.

²⁰ Key informant, Port-au-Prince, January 2013.

Overall the market appears to function well as the price of edible oil has remained relatively stable in the last 10 months and supply is generally adequate.

Including edible oil in the Title II-supported national food voucher program can “stimulate” the market, but not in the same way as inclusion of locally produced food crops. The design of the voucher will need to specifically target medium- and small-scale merchants to ensure benefits accrue to these actors rather than solely to the two main importers if the vouchers are going to have a more substantial positive affect on job creation. However, because medium-scale merchants purchase their oil from the two large importers, future awardees will also need to communicate and coordinate with these two importers so that there is an adequate supply of imported edible oil on the market to meet the increased demand resulting from a voucher program.

1.5. OVERVIEW OF LOCAL MARKETS

The USAID-BEST team selected 24 urban and rural markets across Haiti, located in surplus and deficit areas across 10 Departments of the country, to examine the local markets’ shared characteristics relevant for future food security programming. The following summary briefly presents findings of commodity markets by Department, and by type of market actor (importers, agro-processors, wholesalers, and retailers), and then suggests the implications for the next Title II cycle.

Greater Port-au-Prince. Imported commodities dominate the two major markets in this region: Croix-des-Bossales and Croix-des-Bouquets. However, itinerant traders called *Madam Saras* also exchange large quantities of locally produced commodities. They engage in spatial arbitrage (earning profit by taking advantage of price differences in different markets), primarily conducting business along their preferred routes. Three levels of actors exist in this market: 1) large wholesalers (depot owners and *Madam Saras*); 2) semi-wholesalers; and 3) retailers. Large and semi-wholesalers tend to follow the patterns of production seasons and tend to source from markets to which they have familial ties.

Artibonite. The three major markets are: Gonaïves, Pont Sondé, and Verrettes. Gonaïves is an urban market that mainly specializes in imported commodities, whereas Pont Sondé and Verrettes are rural markets that primarily sell locally produced goods. The Artibonite valley is the main rice-growing area with a total of 28,000 hectares cultivated to rice.

North/Northeastern. The North Department encompasses Cap-Haitien, Limbé, and Saint-Raphael markets. Commodities from the US and the DR dominate the trade at Cap-Haitien, whereas Limbé receives a significant amount of both imported and local goods. The Saint-Raphael market specializes in locally produced maize and rice. In the Northeast Department, the biggest market is in fact located in the DR town of Dajabon because of the proximity to the Dajabon/Ouanaminthe free market for Haitian traders. This market functions freely on

Mondays and Fridays; Dominican wholesalers and owners of depots directly sell commodities such as wheat flour, maize meal, maize flour, dry beans, and fresh vegetables to Haitian traders. All sales transactions occur in Dominican pesos.

Center. There are three major markets: Hinche, Thomassique, and Mirebalais. The market at Hinche mainly supplies imported commodities (rice, bulgur, wheat flour, maize meal, and vegetable oil) from Port-au-Prince. However, during harvest seasons, local maize grain, sorghum, and beans are available in large quantities. The Thomassique market is close to the DR border. Consequently, traders also import commodities from the DR even though they primarily sell local maize and sorghum in this market. As for Mirebalais, *Madam Saras* from Port-au-Prince and other regions purchase large quantities of maize grain at this market during harvest seasons.

South/Southeast. The South Department includes Cavaillons, Kans, Les Cayes, Marché Jeudi, and Camp-Perrin that specialize in local goods (beans, maize, and sorghum). However, Les Cayes is mainly a retail market that supplies urban consumers with imported commodities. In the Southeast, the Jacmel market is the most important in this region and serves more than 50,000 consumers. Traders mainly deal in locally produced commodities, but beans, wheat flour, and maize from the DR are also for sale on the market.

West/Nippes. The market in the West Department is a point of sale for regional farmers and small traders. Urban *Madam Saras* and consumers from the towns of Miragoane and Petit-Goave purchase products in this market. Goods directly imported from the DR border market of Jimani are for sale on this market. As for Nippes Department, Fond des Nègres attracts around 10,000 traders and consumers and mainly sells sorghum and vegetables, but the port of Miragoane provides imported rice, oil, and beans as well.

Summary of shared characteristics. In general for each of these markets, unemployment in urban areas has caused an increase in small trading activity that has extended the market to formerly residential areas. Other shared characteristics include **lack of measurement standardization** for semi-wholesalers and retailers, and the availability of credit at all marketing levels. Although the earthquake caused market efficiency to deteriorate, all markets appear to have adequate supply, but more so for imported goods.

1.5.1 Market Actors

A pyramidal structure characterizes imported commodities in the Haitian market with a small number of actors at the top of the chain, and a highly competitive market at the bottom retailers level. The small processing industry also follows this structure. However, this structure does not describe the market for locally produced agricultural commodities, which contains many actors.

Importers. Most major importers in Haiti are based in Port-



Photo by Fintrac Inc.

Vendors and customers gather at the Marché Jeudi market. Les Cayes, Haiti, January 2013.

au-Prince and typically handle 70 to 80 percent of all imports for a certain commodity. One common characteristic among these major importers is that they are involved in various trading activities that may give them a degree of market control.

Agro-processors. As opposed to major importers, agro-processors tend to specialize in one activity. They usually import inputs for their own operations. LMH is one such example as it produces more than 70 percent of wheat flour consumed in the country.

Agricultural Producers There are 130,000 producers involved in rice production, more than 600,000 in maize production, and about 350,000 farmers in bean production. However, labor availability poses constraints on agricultural production in Haiti as most of the youth in rural areas migrate to Port-au-Prince or to the DR for seemingly more lucrative jobs.

Wholesalers and retailers. Both first-level and second-level wholesalers play similar functions. First-level wholesalers buy directly from importers and sell either directly to retailers or via second-level wholesalers (estimated at around 200 traders). Retailers in turn buy in bulk (in sacks or marmites) and then sell in smaller measurements to final consumers.

1.5.2 Implication for Future Food Voucher Programs

The effectiveness of the current credit system indicates that the introduction of a voucher system will not adversely affect the market by placing substantial upwards pressure on prices in larger markets. However, in smaller markets where voucher beneficiaries often live, prices may increase significantly. Government and donors, including USAID, will need to implement programs that could affect the supply side of the market in some areas targeted by the food voucher to ensure an adequate supply without undue pressure on production

costs, and therefore, retail prices. As with any voucher system, merchants who perceive an opportunity to profit could speculate and increase the price of their commodities; USAID and the future Title II awardee will need to guard against this action by closely monitoring prices during implementation.

Consumers tend to purchase imported goods because imported foods are available all year, USAID and the GoH need to tie the voucher to local products if the vouchers are intended to stimulate local agricultural production. Seasonal targeting will be critical for the success of a voucher program, and may encourage improved interdepartmental trade of local foods by increasing the buying power of consumers in rural areas. Future awardees should carefully consider the timing and duration when distributing the vouchers. Local commodities are scarce during lean season, when beneficiaries are likely most in need. Title II partners in the next cycle should analyze the production seasonality across regions to better understand the potential for suppliers to source foods through interdepartmental trade so as to ensure a consistent supply of local commodities.

1.6. DISTRIBUTED FOOD AID

The Request for Applications (RFA) for the next Title II cycle in Haiti specifically requests 1,000 days/preventive MCHN programming, which use Title II in-kind resources to target pregnant and lactating mothers and children 6-23 months.

Geographic targeting. Targeting of a 1,000 days program in geographic areas where a relatively large proportion of the population is poor and suffers poor nutrition outcomes suggests a blanket preventive food-based nutrition program is more likely to increase consumption than to substantially disrupt markets. The five Departments with the most individuals in the lowest quintile of wealth are the Center, Grand Anse, Artibonite, Nippes and South Departments.²¹

According to the 2012 Demographic and Health Survey (DHS), the five Departments with the highest rates of stunting in children under five are: Southeast (28.8 percent), Center (28 percent), Artibonite (26.4 percent), Grand Anse (26 percent), and North (25 percent). These findings contrast slightly with stunting rates reported in the recent 2012 Ministry of Public Health and the Population (MSPP, *Ministère de la Santé Publique et de la Population*)/UNICEF/WFP SMART survey, which reports that the five Departments with the highest stunting rates are: Northeast (32.9 percent), Grand Anse (27.6 percent), North (27 percent), Northwest (26.8 percent), and West (25.7 percent).²²

Once Department level data on poverty and stunting are combined to rank geographic areas where access and utilization appear to be poorest, the ranking of departments differs depending on which survey is used to report stunting

21 CNSA, 2011, *Enquête d'Évaluation de la Performance de la Campagne de Printemps 2011 et Analyses des Marchés et de la Sécurité Alimentaire*.

22 Institut Haitien de l'Enfance (IHE) and Measure DHS ICF International, September 2012, *Enquête Mortalité, Morbidité et Utilisation des Services EMMUS-V*; MSPP/UNICEF/WFP, 2012, *MSPP/UNICEF/WFP Smart Survey Malnutrition*.

prevalence. Center, Grand Anse, and Artibonite are in the top three when the DHS figures are used. However, based on SMART survey results, the only Department with the highest stunting prevalence that also appears among the top five poorest Departments is Grand Anse. In fact, Grand Anse is the only Department where all three surveys indicate access and utilization are among the poorest in the country.

Prospective awardees should also take into account potential programmatic overlaps with Feed the Future activities that aim to increase agricultural production. Future awardees should also consider Ministry of Agriculture, Natural Resources and Rural Development priorities and other examples of GoH programming such as *Kore Fanmi* and *Ti Manman Cheri*. Finally, when considering geographic targeting for 1,000 days programming, awardees should also assess the availability/capacity of local partners, government capacity, available infrastructure, population density, and degree of market integration.

In-kind food. The RFA prioritizes fortified blended foods for 1,000 days programming, but other food commodities can also be considered. While Corn Soy Blend (CSB), Wheat Soy Blend, and Soy-Fortified Bulgur have all been used for Title II MYAP activities, beneficiaries for 1,000 days/MCHN programming in Haiti prefer CSB. Beneficiaries and MYAP awardees generally agreed that all three blended cereal products are appropriate because of high-protein content.

USAID-BEST witnessed minimal quantities of verifiable Title II food aid for sale in markets during the field visit in January 2013. However, there is strong evidence that beneficiaries, especially FFW beneficiaries, regularly self-monetize bulgur wheat. Self-monetization of this cereal on the market may negatively affect the prices of substitute cereals. Food aid that is not valued by the beneficiaries as food but is instead self-monetized to purchase other goods suggests there is a problem with the design of the activity, the implementation of the activity, or both. USAID should work with PVOs on the design and implementation of activities that include bulgur in the ration, and consider substantially reducing the use of bulgur wheat for direct distribution in development programs because of the market impact.

Local foods. USAID and future awardees should consider the feasibility of incorporating local fortified food commodities that will target Haitian agricultural products, such as AK100 (*akasan*, includes milk, corn flour, and spices), AK1000 (*akamil*, includes pulses, cereal and fortificants), *Medikamamba* (produced in Cap Haitien by Meds and Foods for Kids) and *Nourimanba* (a peanut paste that Partners in Health in Cange, Central Plateau will likely produce), to complement the goals of the planned food voucher program.²³

Program flexibility. Since devastating natural disasters such as

23 The food voucher component expected under the next cycle of programming will be supported by Community Development Funds since, at present, Title II funds cannot be used to purchase local food commodities.

the 2010 earthquake, the cholera outbreak, Hurricanes Isaac and Sandy, and drought occurred during the current MYAP cycle, the new Title II development program should build flexibility in to their proposals and planned activities. Longer-term development projects should complement as best as possible any necessary, short-term emergency interventions.

Corruption. Corruption is a significant operational concern in Haiti. New Title II development food aid programming, including future direct distribution and complementary voucher programming, should ensure that interventions are accountable and transparent.

General considerations. Reduced tonnages are expected under the new Title II program cycle because direct distribution programming will be limited to 1,000 days activities, and the majority of programming funds will go towards targeted vouchers. Therefore, USAID-BEST anticipates minimal Bellmon concerns for the new cycle based on current MYAP distributed food aid programming levels.

Most merchants interviewed during the USAID-BEST field visit said they would accept the vouchers, but some said they would only do so if other merchants agreed as well. Awardees should expect to provide more information and training to merchants and beneficiaries as they roll out the food voucher program. Finally, if the voucher extends to local merchants, such as *Madam Saras*, retailer measurement standards need to be established to ensure the beneficiary is receiving the planned ration.

1.7. LOCAL AND REGIONAL PROCUREMENT, CASH, AND FOOD VOUCHERS

LRP allows for the local 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 donor distribution of food that has been purchased in a neighboring country.

This report describes the use of LRP, cash, and vouchers designed and executed in the aftermath of the January 2010 earthquake and provides recommendations for the design of the food voucher program in the next Title II cycle. To inform anticipated USAID support for the national safety net program, Chapter 7 presents electronic transfer options and highlights the major local market conditions that will influence whether a national voucher program can effectively target local production.

LRP. WFP, with support from the French Cooperation, has been the main agency engaged in LRP in Haiti, mainly in support of their national school feeding program. Non-governmental organizations (NGOs) have not typically engaged in direct LRP but have supported purchase of local produce through cash voucher programs, the majority of which were funded through USAID/EFSP grants.

Cash and Vouchers. In response to the January 2010 earthquake, NGOs carried out a large number of innovative cash-based interventions. A key characteristic of the response was its extensive use of mobile technology. USAID/Gates Foundation Haiti Mobile Money Initiative contributed to these efforts by launching a program in June 2010 that offered financial incentives for mobile network operators (MNO)s involved in mobile money services. In the summer of 2012, Mercy Corps became the first NGO to pilot mobile transfers in collaboration with MNO Voilà and the Haitian bank Unibank for their cash-for-work and cash grants program in the Central Plateau, which was funded by the US Office of Foreign Disaster Assistance.

Two other programs followed suit: 1) the *Kenbe-La* food voucher program implemented in the lower Artibonite and Central Plateau regions used mobile transfers; and 2) CRS and CARE initiated the Grande Anse Relief and Recovery Program (GRRP) and *Kore L'Avni Nou* food voucher program, respectively, to target 14,700 households with mobile vouchers through a partnership with the MNO Digicel.

The results from these programs demonstrate that vouchers can be an effective market-based option for providing food assistance to large beneficiary populations. Beneficiaries surveyed cite convenience, choice, and empowerment as the positive benefits of voucher programs over other modalities. Furthermore, staple foods are generally readily available in local markets (both formal and informal) in urban centers, and markets appear to function well. Consumption of locally produced foods may increase as vouchers augment the purchasing power of those who typically consume these commodities..

The GoH has largely supported food voucher programs and cash-based interventions. *Aba Grangou*, the national hunger strategy, incorporated the EFSP-supported Grand Anse voucher/ cash programming by CARE and CRS. The Office of the Prime Minister recently launched the *Ti Manman Cheri* initiative to transfer cash via mobile phones to mothers whose children are fully enrolled in primary schools.

Despite the success of current voucher programs, challenges still remain. Future Title II partners should consider such hurdles when designing food vouchers with the GoH for the national safety net program. Accurate beneficiary targeting poses one obstacle because NGOs must ensure program quality on a large country-wide scale. Additionally, the timing of the intervention and the composition of the food basket will require careful analysis. NGOs in the next Title II cycle need also to collaborate with the GoH and ensure the effective coordination of its activities. Lastly, NGOs should recognize that food-insecure households have previously utilized vouchers for purchasing imported foods, and take this action into account in creating future food voucher programs that intend to stimulate local production.



CHAPTER 2 OVERVIEW OF FOOD SECURITY PROGRAMS

A vendor shells Congo peas for sale on the market. Croix-des-Bouquets, Haiti, January 2013.

Photo by Fintrac Inc.

2.1. INTRODUCTION

This chapter provides a summary of food security programs supported by USAID (including the USAID-funded Multi-Year Assistance Program (MYAP)), USDA, and WFP. Additionally, the chapter outlines current and planned Government of Haiti (GoH) and other major donor food security initiatives. The chapter concludes with a short discussion of food security programming trends in Haiti.

2.2. FOOD AID VOLUMES

For the past decades, the US government (USG) has provided substantial assistance to Haiti, including significant quantities of food aid. When analyzing the past five full fiscal years (FY) (FY08-12), USG food aid noticeably increased in FY10 as a direct response to the January 2010 earthquake. Since then, the USG and other donors have scaled back direct food distributions from FY11-13, and have focused more on improving food security through Haitian agricultural development. For FY11-13, USAID planned and distributed an average tonnage of nearly 14,000 metric tons (MT) per year.

2.3. FOOD AID PROGRAMMING

Currently, ACDI/VOCA, Catholic Relief Services (CRS), and World Vision (WV) are implementing MYAPs in Haiti. Each program completed the five-year cycle of activities from FY08-12. However, all three programs received a further one-year

extension from USAID/Haiti in FY12, and are now scheduled to end MYAP activities in September 2013.

USAID: Development and Emergency Distributed Food Aid. USAID has provided significant quantities of development and emergency food to Haiti from FY08-13. The following map shows the areas of programming in FY13 for the three MYAP partners.

Figure 2. Haiti Title II MYAP Programming, FY13



Source: Created by USAID-BEST.

The table below shows overall USAID food aid tonnages to PVOs and WFP over the five-year cycle of FY08-FY12, and includes projected food aid tonnages for the one-year program extension for FY13.

Table 1. USAID/Haiti Overall Distributed Food Aid Tonnages (MT), FY08-13

FY08	FY09	FY10	FY11	FY12	FY13*	Total
81,060	83,020	152,960	21,430	8,230	11,971	358,671

Source: USAID, includes tonnages to NGOs and WFP, totals may vary depending on fiscal and calendar year differences.

*Figures for FY13 are preliminary.

Table 2 provides food aid tonnages distributed by individual Title II awardees over the past five FYs, and includes projected tonnages during FY13.

Table 2. Title II Awardees Distributed Food Aid Tonnages (MT), FY08-13

PVO	FY08	FY09	FY10	FY11	FY12	FY13*	Total
ACDI/VOCA	130	1,400	5,820	1,980	3,603	838	13,771
CARE	0	870	0	0	0	0	870
CRS	11,610	12,010	26,960	9,260	3,700	7,303	70,843
WV	14,440	10,520	36,690	12,610	4,275	3,830	82,365
Total	26,180	24,800	69,470	23,850	11,578	11,971	167,849

Source: USAID, ACDI/VOCA, CRS, WV, and includes emergency and development food aid. USAID tonnages may also vary with PVO figures based on when food aid was actually distributed.

*Figures for FY13 are preliminary.

ACDI/VOCA. ACDI/VOCA's MYAP includes three strategic objectives (SOs): 1) increase resiliency against future food insecurity through the protection and enhancement of livelihoods and the development of community capacities; 2) protect vulnerable populations against immediate food insecurity and develop capacity to address long-term nutrition and health needs; and 3) improve the ability of the communities to identify and successfully respond to vulnerability and impending shocks.²⁴

Activities implemented under SO1 include seed multiplication, crop seed diversification, tree grafting and distributions, coffee bush regeneration, agricultural training, animal (goat) production and traction, financial access/training, and diversification as a livelihood strategy (e.g., small silos for storage or products for sale from sisal). Activities completed under SO2 include improving 1,000 days/Maternal and Child Health Nutrition (MCHN) support, better access to nutritious foods (i.e., Corn Soy Blend), and Water, Sanitation, and Hygiene (WASH) education/access. Programming undertaken for SO3 includes establishing and reacting to early warning indicators, such as preparation for Hurricanes Isaac/Sandy and drought in 2012. ACDI/VOCA implements its programs in seven communes of

24 ACDI/VOCA, November 2012, *ACDI/VOCA ARR 2012*.

the Southeast Department: Bainet, La Vallée, Côtes-de-Fer, Anse à Pitre, Belle Anse, Thiottte and Grand Gosier.

CRS. CRS' MYAP addresses two SOs: 1) vulnerable communities have increased rural productivity in environmentally sound and economically profitable ways; and 2) vulnerable communities have reinforced their human capital.²⁵

MYAP sectoral interventions include natural resource management, agriculture, MCHN, education and early warning/disaster mitigation programming. Illustrative activities include home vegetable gardening, improved sweet potato production, livestock and chicken production, rice intensification, bean/cassava/hot pepper value chains/production, support to local health government structures (Communal Health Units, 1,000 days programming for mothers/infants, support for People Living with HIV/AIDS (PLHIV)²⁶/Tuberculosis (TB) patients, and improved education. The MYAP focuses on development activities in communes of the South, (Port Salut, Port à Piment, Roche à Bateau, Côteaux, Chardonnière, Les Anglais, Tiburon, St. Jean du Sud, Aquin, Ile à Vache), Grand Anse (Jérémy, Beaumont, Duchity, Abricots), and Nippes (Baradères) Departments. CRS is also implementing complementary emergency response programming along the disaster-prone, coastal areas of South Department.

WV. WV's Sak Plen Resiliency Enhancement Program (Sak Rep) MYAP includes two SOs: 1) improved nutritional and health status of targeted vulnerable groups; and 2) improved productive and profitable livelihoods.²⁷

Activities undertaken under SO1 in the health sector include growth monitoring, nutritional support, general health/reproductive health education, health infrastructure facilities and providing support to the GoH Ministry of Public Health and the Population (MSPP, *Ministère de la Santé Publique et de la Population*). Programming implemented under SO2 for livelihoods includes promoting grain production/storage, household coping abilities through vegetable, tree and small animal production, cash crops, irrigation and water management systems, watershed protection, and early warning systems/disaster risk mitigation activities. The programs run in the regions of Ile de la Gonâve (West Department), parts of the Central Plateau, and the Artibonite Departments. Specific targeted communes for the program include Anse à Galets and Pointe à Raquette (Ile de la Gonâve); Hinche, Thomonde, Boucan Carré, Thomassique, Cerca la Source, and Cerca-Carvajal (Upper Central Plateau); and Saut d'Eau, Mirebalais, Lascahobas, Savanette, Verettes, Petite Rivière, Déssalines, and Maissade (Artibonite and Lower Central Plateau).

All three MYAP partners have focused on early warning/disaster risk mitigation activities. Each MYAP partner has had to

25 CRS, January 10 13, *CRS MYAP Summary 2013*. And personal email, CRS, February 2013.

26 Acronym commonly seen as PLWHA, but referred to in the PRRO as PLHIV.

27 WV, June 2012, *WV MYAP Summary 2012*.

Table 3. Title II Tonnages (MT) by Commodity for Awardees, FY12-13

Commodity	ACDI/VOCA FY12	CRS FY12	WV FY12	ACDI/VOCA FY13	CRS FY13	WV FY13	Totals
CSB	218*	16		83			
Pulses (Lentils or Peas)	718	751	299	173	1,284	560	
SFB*	2,114	1,594	2,652	479	3,180	1,620	
WSB*	172	946	964	41	2,171	1,280	
Veg. Oil	301	393	360	62	668	370	
Total FY12	3,603	3,700	4,275				11,578
Total FY13				838	7,303	3,830	11,971**

Source: USAID,ACDI/VOCA, CRS,WV.

*Includes 80 MT of CSB plus.

**FY13 tonnages are preliminary.

overcome significant hurdles during their respective implementation periods from FY08-13, including the earthquake, the cholera outbreak, hurricanes/tropical storms, and periodic drought. The flexibility of the MYAP programming/funding mechanism has helped the current awardees effectively provide emergency assistance, but coordinating longer-term development activities and shorter-term emergency activities continues to present logistics and programming coordination challenges.

Current awardees have also implemented preventive 1,000 days/ MCHN programs as part of the ‘health’ strategic objectives for each of their individual MYAPs. According to the FY12 Annual Results Reports for each MYAP partner, beneficiary numbers measuring the number of pregnant/lactating women receiving food rations are as follows:ACDI/VOCA - 6,021²⁸ women; CRS - 9,105²⁹ women; and WV - 9,756³⁰ women.

Overall, Title II direct distribution tonnages for the current three MYAP partners (covering all program activities) decreased significantly after the 2010 earthquake (see previous tables and Table 3 below). The Request for Applications (RFA) for the new four-year Title II development food aid cycle also calls for reduced tonnages of directly distributed Title II commodities. Chapter 6 of this report will further discuss the expected consequences of these lower tonnages.

2.3.1 USAID LRP/Cash/Voucher Programming

Since the 2010 earthquake, USAID provided US\$70 million to support local and regional procurement (LRP)/cash/voucher programming through Emergency Food Security Program (EFSP) grants. Approximately half of the total US\$70 million supported WFP activities, and the other half went to various private voluntary organizations (PVOs), as shown in the table below. Mercy Corps’ program was the largest PVO program at US\$12.5 million, and was notable in that it targeted earthquake-

Table 4. USAID EFSP Haiti Grants (US\$ million), 2010-13

Organization	Date	Program Value	Where	Intervention
WFP	7/10-8/11	35	Earthquake-affected areas, Greater Port-au-Prince region	FFW, CFW
Mercy Corps	7/10-9/11	12.5	Artibonite, Central Plateau	Food vouchers
CRS	9/11-10/12	4	Grande Anse	Food vouchers
ACF	8/11-12/12	3.6	Artibonite	CFW
CARE	10/11-8/13	7.4*	Grande Anse	E-vouchers for food
WV	11/12-7/13	2.5	Isle de la Gonâve	Food vouchers
ACDI/VOCA	1/13-6/13	3.9	South Dept.	Purchase and distribute maize seed
Totals		69.9		

Source: USAID/FFP.

*Total of \$7.4 million represents original program (US\$5.9 million) and current extension in FY13 (US\$2.5 million)

affected families³¹ in the Artibonite and Center Departments with mobile and paper vouchers. ACDI/VOCA, CARE, and WV will all implement EFSP grants in Haiti in FY13. Please see Chapter 7 of this report for further details on these programs.

28 ACDI/VOCA, November 2012, ACDI/VOCA ARR 2012.

29 CRS, November 2012, CRS ARR 2012.

30 WV, November 2012, WV ARR 2012.

31 The families that received assistance were those that had taken in displaced individuals from the Port-au-Prince earthquake.

2.3.2 USDA: LRP, Food for Progress, Food for Education (FFE)

The table below details commodity tonnages for USDA Food for Education (FFE) programs from FY11-13. This programming includes activities undertaken or planned by WFP, Haiti Vision (HV), and Meds and Foods for Kids. Ready-to-use supplementary food (RUSF) will represent the majority of food aid tonnages distributed in FY13.

USDA's FFE funding contributes 21,020 MT of commodities to WFP for the national school-feeding programming in Haiti.³² HV's separate, smaller program utilizes 2,380 MT of food aid for school-feeding in Haiti that targets approximately 80 schools in the Petite Goave/Grande Goave/Leogane region in southern

Table 5. USDA FFE (MT-Direct Distribution)*

Commodity	FY 11	FY 12	FY 13	Total
Beans	880	200	2,770	3,850
Rice	3,730	5,170	9,300	18,200
Veg Oil	400	600	350	1,350
RUSF**			17,600	17,600
Total	5,010	5,970	30,020	41,000

Source: USDA.

*Programming for both WFP and Haiti Vision.

** Programmed through Meds and Foods for Kids.

Haiti. In this area, HV reaches approximately 15 percent of schools, equal to approximately 20,000 beneficiaries (students/teachers) with wet/dry rations. HV further works with WFP/Haiti and the GoH to ensure coordination of the two different school feeding programs.

Meds and Foods for Kids runs the Micronutrient-Fortified Food Aid Products Pilot program,³³ that will distribute 17,600 MT of RUSF (peanut butter fortified with Vitamin A, iodine, iron and zinc) over the 2012/13 and 2013/14 school years in 50 gram (g.) sachets to targeted students (four-to-eight year olds) in the Cap Haitien region. One third of the students will receive the RUSF five times per week, another third of the students will receive an unfortified, locally-available energy bar (provided by the GoH) five times per week, and the last third of students will serve as the control, and will consume neither the RUSF supplement or the unfortified energy bar.

2.3.3 Monetized Food Aid

USAID monetized wheat and wheat flour in FY08-12. USDA monetized soybean meal and Crude Degummed Soybean Oil (CDSO) in FY12.

32 Email correspondence with JWenger, USDA, February 2013.

33 Meds and Foods for Kids, January 2013, *Meds and Foods for Kids-Haiti MFFAPP*.

USAID Title II awardees last monetized wheat grain in FY09, prior to the earthquake that damaged the *Les Moulins d'Haiti* mill, and wheat flour in FY10 after the January earthquake that year. Since 2010, USAID has not funded monetization of wheat or wheat flour. In FY12, USDA completed monetization sales for two Food for Progress programs in the Dominican Republic (DR) for programming in Haiti. The Inter-American Institute for Cooperation on Agriculture monetized soybean meal in the DR in February 2012. Proceeds strengthened infrastructure and

Table 6. USAID (Title II) and USDA (FFPr) Monetized Food Aid (MT)

USAID	FY 08	FY 09	FY 10	FY 11	FY 12	Total
Wheat	34,690	45,710				80,400
Wheat flour			19,000			19,000
USDA						
Soybean meal					23,400*	23,400
CDSO					1,820*	1,820

Source: USAID.

*USDA/FFPr programs signed in FY11 but sold and programmed in FY12, representing FINCA and IICA. The IICA program covers both Haiti and the DR.

legal frameworks for quarantine services and helped provide education on sanitary and phyto-sanitary measures in Haiti and the DR.³⁴ FINCA monetized CDSO in March 2012 and soybean meal in August 2012.³⁵ These funds supported microfinance services to agriculture-related businesses in rural and peri-urban areas of Haiti. During the three-year program implementation period, from FY13-15, 16,500 rural beneficiaries will receive 33,000 loans.³⁶

USAID/Haiti stated in the RFA that monetization is not expected for the next Title II cycle starting in FY13.³⁷ Additionally, the Government of Japan (GoJ) monetizes rice through the GoH Office of Monetization (BDM, *Bureau de Monétisation*).³⁸ The BDM sold 8,660 MT of GoJ rice (the rice used for the monetization was US rice) in September 2012 to wholesalers in greater Port-au-Prince, for further resale to consumers.³⁹

2.3.4 World Food Programme

WFP/Haiti has also distributed large quantities of food aid over FY08-12, averaging over 70,000 MT per year during that time period. Distributions peaked in 2010, in response to food needs

34 Email correspondence with V.Mayol, IICA, 1/31/13.

35 Email correspondence with MKrzystan, FINCA, 1/31/13.

36 Email correspondence with MKrzystan, FINCA, 1/31/13.

37 The RFA states, "Applications that include monetization will not be considered," p. 1.

38 Bureau de Monétisation, 2012, Haiti Bureau de Monétisation Partners, Japan. http://www.bureaudegestion.gouv.ht/partenaire_bilateraux_petrocaribe.htm, accessed February 2013.

39 Key informant, Port-au-Prince, February 2013.

stemming from the January earthquake.

WFP/Haiti's two-year Protracted Relief and Recovery Operation (PRRO) was originally scheduled to run from 2011-12, but will extend to June 30, 2013 with additional funds. The PRRO was designed to meet Haiti's broad, national food security needs in the aftermath of the earthquake, although most activities are concentrated in the earthquake-affected areas of the south.⁴⁰

Table 7. WFP/Haiti Food Aid Tonnages (MT), 2008-12

	2008	2009	2010	2011	2012	Total
WFP/Haiti	50,342	65,835	127,177	72,147	39,885	355,386
USG % Contribution*	22%	24%	57%	14%	20%	

Source: WFP/Haiti.

*USG contribution only includes actual food commodities and does not include additional funding support for administrative costs.

Note: WFP figures are reported by calendar year.

The table above reflects a decrease in direct food aid distribution, as WFP's food assistance in Haiti over the past five years peaked significantly in 2010, and then declined to its lowest level in 2012. Programmatic activities under the ongoing, extended PRRO include general food distributions, MCHN initiatives for pregnant/lactating mothers and children under five, supplementary feeding for PLHIV/TB patients, school feeding, seasonal distributions, and Food-for-Work/Cash-for-Work programming.

GoH National School Meals Programme, in collaboration with WFP. As of July 2013, funds from WFP support the GoH's National School Meals Programme (NSMP, *Programme National de Cantines Scolaires*) will transfer from the extended PRRO to WFP's Development (DEV) Project. In the 2012/13 school year, WFP will coordinate with the GoH to provide a daily wet (cooked) meal to approximately 685,000 students in 2,142 schools across seven of Haiti's 10 departments.

The NSMP prioritizes public schools based on the assumption that public schools have higher numbers of vulnerable students than private schools. However, since public schools make up only approximately 15 percent of all schools nationally, the NSMP also targets some private schools based on need, location, access to other services, numbers of students, and other vulnerability factors.

WFP currently works with 16 NGO partners to implement the NSMP. Beginning in July 2013, school feeding activities from the PRRO will be merged with those under the DEV program. There will be no specific geographical targeting for the schools for the 2013/14 school year, but WFP and the GoH NSMP will collaborate to determine which schools will continue to receive food aid based on vulnerability and food insecurity levels.⁴¹

40 USAID-BEST field interview, 1/13.

41 Email correspondence, ARenard/WFP/Haiti, February 2013.

WFP will run two additional pilot programs utilizing LRP. The first is budgeted at US\$2 million and will provide food assistance to 3,700 students in the southern Petite Rivière de Nippes commune. This pilot program is scheduled to run through the 2014/15 school year, and will target 25 schools to provide wet meals, snacks, and vitamins. The GoH partners are the NSMP, the Ministry of Agriculture, Natural Resources, and Rural Development (MARNDR, *Ministère de l'Agriculture, des Ressources Naturelles et du Développement Rural*), and the Ministry of Peasant Promotion.

In 2012, WFP purchased 3,400 MT of rice, maize meal, and milk in-country for the NSMP.⁴²

French Cooperation (Cooperation Francaise), in collaboration with WFP. The French Government also provided €2.5 million in 2012 to fund the WFP LRP program for the NSMP.⁴³ These funds were primarily used for the local purchase of 1,590 MT of cereals (1,265 MT of rice and 325 MT of maize meal), and remaining funds were used to support farmers' associations and provide training for quality assurance of foodstuffs, e.g., improved post-harvest handling and better storage techniques. The locally purchased food commodities cover almost half of the WFP LRP program's current, annual needs for schools.

The Government of Brazil (GoB), in collaboration with WFP/GoH/NGOs. The GoB is funding a three-year pilot LRP initiative, *Let Agogo Nan Lekol La*, which will provide locally-produced milk to 24,000 students. Partners include WFP, MARNDR, Veterimed (a Haitian NGO), the Food and Agriculture Organization, and the GoH Facilitation Unit for Local Purchase. In 2012, 1.23 million bottles of fresh milk were contracted for purchase.

Chapter 7 will discuss in detail these pilot LRP initiatives (NSMP, French Cooperation, GoB).

2.3.5 National Government

The GoH has initiated a number of programs to target food security and improved health in the aftermath of the 2010 earthquake. The following initiatives are relevant to the new four-year Title II development food aid program, expected to start later in FY13.

Aba Grangou. *Down with Hunger (Aba Grangou)* aims to halve the number of those suffering from hunger by 2016, and to fully eradicate hunger and malnutrition in Haiti by 2025. The social safety net strategy intends to achieve this goal through 1) safety net programming that targets the most vulnerable households (through school feeding, cash transfers, job creation during crises, and emergency food stocks); 2) agricultural investment (e.g., fertilizer, improved land access, irrigation) to increase actual production; and 3) basic service provision (e.g., health,

42 WFP, 2013, *WFP/Haiti Local Purchases*.

43 Ambassade de France en Haiti, December 2012, *Aide Alimentaire: Bilan de l'Utilisation des Credits 2012 et Previsions des Besoins pour 2013*.

nutrition, WASH, improved post-harvest storage). The Commission for the Fight Against Hunger and Malnutrition (COLFAM), and the Office of the First Lady will provide strategic guidance and coordination for these activities with the relevant Ministries.⁴⁴

Dear Mother (Ti Manman Cheri). This GoH conditional cash transfer initiative targets vulnerable mothers with schoolchildren in urban/peri-urban areas of Haiti. The program design draws from the Brazilian *Bolsa Familia* program, and Petro Caribe/Government of Venezuela (GoV) has funded US\$15 million for the current school year. The office of the Prime Minister oversees the program. To qualify, children must be enrolled in primary school (between grades one-six) as verified by the school principal. Mothers can receive 400 Haitian Gourdes (HTG) per month for one child in school and 600 HTG per month for two children in school, but the program is capped at 800 HTG per month for families with three children in school. Mothers must also own a functioning cellphone to receive the cash payment through the *Tcho Tcho* mobile money transfer system. The program began disbursing money in September 2012 and as of January 2013, it had nearly 20,000 verified beneficiary mothers. The highest concentration of beneficiaries is in the North Department because this program initially focused on regions outside of the greater Port-au-Prince area.

Family Support (Kore Fanmi). This GoH initiative targets vulnerable families through general community workers (ACP, *agent communautaire polyvalent*) who 1) distribute essential goods/services, 2) promote behavior change, and 3) connect these families with social services.⁴⁵ This program receives funding from the World Bank and UNICEF and its methodology is patterned after a similar health care and social service provision in Chile. The GoH initially piloted the program in 2010 in four communes of the Central Plateau (Thomassique, Maissade, Boucan Carré, Saut d'Eau), and it plans to expand it to the Northwest, Northeast, and Southeast Departments in 2013.⁴⁶ Roughly 100 ACPs managed pilot activities in Central Plateau, and more ACPs are being trained for the expansion of activities in the north. Management of the project falls to the Social and Economic Assistance Fund (FAES, *Fonds d'Assistance Économique et Sociale*).

2.3.6 Other USG and Major Donor Programming

The following summaries for USG and other major donor food security programming are illustrative and not exhaustive.

USAID Haiti/Economic Growth. USAID Haiti awarded a US\$126 million/five-year agricultural project, the Watershed Initiative for National Natural Environmental Resources to

44 GoH, 2012, *Aba Grangou Conceptual Note on the National Program for the Fight Against Hunger and Malnutrition*.

45 Key informant, Port-au-Prince, February 2013.

46 Key informant, Port-au-Prince, February 2013. World Bank will fund expansion into Northwest and Northeast Departments. UNICEF will fund expansion into Southeast.

Chemonics in 2009. The project targets watershed management, complementary large-scale agricultural production, processing, and commercialization in the corridors of Cul de Sac, Saint Marc, Mirebalais and Saut d'Eau regions in the center of the country.

USAID Haiti also issued a Request for Proposals (*US-Haiti Feed the Future Partnership: Northern Corridor*) in February 2012 that budgeted up to US\$79 million over three years, and up to US\$14.5 million in funding over two additional optional years, to increase agricultural incomes.⁴⁷ Agricultural activities will target the plains and associated watersheds in the Northern (Cap Haitien) Corridor. Communes included in this solicitation are: Acul du Nord, Bas-Limbe, Cap Haitien, Caracol, Ferrier, Fort-Liberté, Limbé, Limonade, Milot, Ouanaminthe, Plaine du Nord, Quartier Morin, Terrier Rouge, and Trou du Nord⁴⁸

Inter-American Development Bank. The Inter-American Development Bank (IDB) runs two large food security programs: 1) The Natural Disaster Mitigation Program in Priority Watersheds (US\$30 million program value, December 2010 to September 2014) aims to lower vulnerability to natural disasters for 360,000 people living in a 162,500 hectare (ha.) area within the select watershed zones of Grande Rivière du Nord (64,000 ha.), Cavaillon (32,500 ha.), and Ravine du Sud (66,000 ha.) through activities including riverbank consolidation, landslide control, and erosion control, implemented by farmers' groups; and 2) Technology Transfer to Small Farmers (US\$40 million program value⁴⁹ with an IDB contribution of US\$15 million), which seeks to increase 30,000 smallholder farmers' agricultural incomes and food security in the North and Northeast Departments through improved agricultural services and investment. This project runs from November 2012-October 2016. To meet these objectives, the program intends to increase sustainable agricultural technology adoption and to build up the GoH National Seeds Service and linked capacity building for MARNDR.

Government of Venezuela. The GoV provided US\$369 million in assistance to Haiti in 2012 through the Petro Caribe program.⁵⁰ Funds have been used to specifically support the GoH *Ti Manman Cheri* and *Aba Grangou* initiatives, among other additional development initiatives.

Other Community Based Organizations. There are notable quantities of food aid and other in-kind aid (e.g., medical supplies, school supplies) coming in to Haiti through community based organizations, and particularly through missionary work. Thousands of outside organizations/development projects from neighboring countries, especially the US, have provided this

47 USAID, 2012, *USAID FTF North RFP*.

48 Development Alternatives Inc. was awarded this contract, worth approximately US\$88 million, on April 1, 2013; see <https://www.fbo.gov/spg/AID/OM/HAI/SOL-521-12-000021/listing.html>.

49 US\$25 million will additionally be provided by the World Bank Global Agriculture and Food Security Program, which represents multiple donors.

50 Embassy of Venezuela, 2013, Venezuela's Continuing Aid to Haiti. <http://venezuela-us.org/live/wp-content/uploads/2009/12/12.28.2012-Aid-to-Haiti.pdf>, accessed February 2013.

assistance over the past few decades. A World Bank report estimates there were 10,000 NGOs in Haiti in 2009, and presumably this number has increased after the January 2010 earthquake.⁵¹ However, to quantify the actual volumes of food aid from these initiatives is a challenge because many groups appear to bring in goods without formally declaring them as imported food aid. The new Title II developmental food aid awardee should be aware of this related, informal food security programming on a local level in areas of implementation, and monitor any potential negative impacts of these largely independent and often uncoordinated activities.

2.4. FOOD SECURITY PROGRAMMING TRENDS IN HAITI

Several important trends in food security programming in Haiti will have important implications for implementing partners under the new FY13-17 Title II development food assistance program.

First, the goal for the GoH and USAID is increased donor collaboration with GoH structures at the national, department, and local levels, and increasing GoH ownership and management of this food security programming, including specific voucher programming aimed at promoting local agricultural production. The long-term goal of this coordination is to build government capacity, enhance sustainability, and hand over the program responsibilities to appropriate GoH counterparts. The USAID-supported safety net activities are designed to be managed by the Ministry of Social Affairs and Labor (MAST, *Ministère des Affaires Sociales et du Travail*). Overall, MAST will need to work with the other relevant GoH bodies (MSPP, MARNDR, FAES, and the National Coordination for Food Security (CNSA, *Coordination Nationale de la Sécurité Alimentaire*) involved in the implementation of national safety net programming to effectively reduce food insecurity and poverty levels for Haiti's most vulnerable households.

Second, Haiti is a USAID Feed the Future priority country under the Bureau of Food Security (BFS). Feed the Future initiatives include agricultural development activities in targeted corridors of central and northern Haiti. These activities can and should complement and support one of the objectives of the new USAID-supported voucher program; namely, to ensure the food vouchers effectively stimulate local production. This voucher programming, implemented through the next Title II awardee, will receive support from USAID/BFS Community Development Funds, and USAID/Haiti will manage this initiative. When designing the in designing the food voucher program, the next Title II awardee should take into account potential food security program synergies with Feed the Future projects. Third, school feeding programs in Haiti, whether supported by the GoH, international donors, or private groups are expected to increase demand and consumption of local food products for meals provided at target schools. The new Title II development

awardee should be aware of these initiatives, and potential impact, in consideration of overall future programming implementation, and especially the school feeding voucher component (which targets local agricultural products through prepared meals).

Finally, there are many GoH donor-supported, and private food security initiatives in Haiti. Further chapters in this report will discuss the performance of markets for staple foods, the potential for local purchase of food, and how a voucher program may be able to target local production. All of this information should serve as a guide for programming design and implementation for future Title II programming under the new cycle.

51 Klarreich, Kathie and Polman, Linda, 2013, *The NGO Republic of Haiti*. Additionally, Catholic Institute for International Relations (2004) estimates that there are approximately 10,000-20,000 NGOs in Haiti.



CHAPTER 3 ADEQUACY OF PORTS, INLAND TRANSPORT, AND STORAGE

Men stand atop bags of charcoal on National Route #2. This primary road is considered in good condition. South Department, Haiti, January 2013.

Photo by Fintrac Inc.

3.1. INTRODUCTION

To inform current and future Title II development programs in Haiti, this chapter considers the overall adequacy of ports, inland transport, and storage. Haiti and the Dominican Republic (DR) both make up the Island of Hispaniola. The following map shows major transport routes, department boundaries, and the two

Figure 3. Map of Haiti's Transport Infrastructure and Departments



Source: Ezilon.com.

The 2011 Haiti USAID-BEST Analysis collected thorough and detailed information on ports, transport, and storage in July 2011. USAID/Port-au-Prince specifically requested detailed information to assess transport and logistics for potential food aid programming in Haiti in the aftermath of the January 2010 earthquake. The 2011 report provides background context and a framework for the present chapter of the current study. Please note updated findings in this report, and refer to the 2011 Haiti USAID-BEST Analysis for additional details.

most important ocean ports: centrally-located Port-au-Prince and northern Cap-Haïtien. Note that the Nippes Department on the southern peninsula is not delineated.

Detailed analysis covers these two main ports, the secondary coastal port of Gonaïves, and smaller coastal towns. Discussion of inland transport then focuses on the major national routes and those specifically used by current Title II partners for USAID (ACDI/VOCA, Catholic Relief Services (CRS), and World Vision (WV)). Lastly, the chapter examines storage facilities for private voluntary organizations (PVOs), the Government of Haiti (GoH), and commercial actors.

3.2. MAJOR PORTS

The US government (USG) brought in 8,230 metric tons (MT) of food aid in fiscal year (FY) 12, all through the International Public Port of Port-au-Prince (IPPP) port facility. WFP/Haiti imported 39,885 MT of food aid through both the IPPP

(approximately 2/3) and the Cap Haitien (approximately 1/3) port facilities.

3.2.1 Port-au-Prince

Location. The IPPP is the major international port. It is located in Haiti's West Department on the west coast of Hispaniola Island, which Haiti and the DR share. After the January 2010 earthquake, the WFP viewed the port as "operational, but at very low capacity."⁵²

Capacity. The National Port Authority (APN, *Autorité Portuaire Nationale*) manages the IPPP and other official ports.⁵³ The IPPP has been repaired since the 2010 earthquake and functionality has significantly improved.⁵⁴ However, full repairs at the port are ongoing, and this shortcoming has affected port performance. Current total cargo handled at the IPPP, Terminal Varreux, Port Lafitteau/Les Moulins d'Haiti (LMH), La Cimenterie Nationale, DINASA (Thor) and Terminal Abraham, facilities was estimated at approximately four million MT, as of the January 2013 USAID-BEST field interviews.⁵⁵ This number represents a roughly 10 percent increase in tonnage handled at all greater Port-au-Prince ports together, and at IPPP individually, since before the January 2010 earthquake. Container traffic unloaded and loaded at IPPP was 166,323 TEUs (Twenty-Foot Equivalent Units) for the recent October 2011-September 2012 period. Constructed improvements (repairs to docking facilities at the permanent and floating wharves) and more efficient operations (congestion levels have reduced) since the 2010 earthquake have helped improve port performance. IPPP operations are reported at full capacity as of January 2013, and further improvements are likely with further investment and expansion.⁵⁶

Roughly 90 percent of Haiti's total container imports arrive at IPPP.⁵⁷ The port handled roughly 250 containers per day prior to the earthquake, and now handles 300-350 containers per day and averages around 300 containers per day.⁵⁸ The IPPP currently handles all of the development Title II food aid that usually arrives bagged and in containers. WFP receives about 2/3 of its food aid shipments for Haiti through the IPPP.⁵⁹ The APN instituted port fees are roughly three times the regional average, and that the port is roughly 1/3 as efficient operationally as other regional ports in the Caribbean basin.⁶⁰ Higher stevedoring costs and high APN wharfage fees primarily account for these excessive port fees in Haiti, as compared to other Caribbean port facilities.⁶¹ This report still recommends Title II

52 WFP, February 2012, *WFP Haiti DLCA*.

53 WFP, February 2012, *WFP Haiti DLCA*.

54 WFP/Haiti field interview during USAID-BEST field trip, January 2013.

55 Key informant, Port-au-Prince, January 2013.

56 APN (IPPP) field interview during USAID-BEST field trip, Port-au-Prince, January 2013

57 USAID-BEST, December 2011, Haiti USAID-BEST Analysis.

58 USAID-BEST, December 2011, Haiti USAID-BEST Analysis.

59 WFP, February 2012, *WFP Haiti DLCA*.

60 Key informant, Port-au-Prince, January 2013.

61 Tran Systems, February 2009, *Review of Haiti Port Tariffs*.

commodities enter through the IPPP. Despite possible corruption, increased costs, and low efficiency,⁶² the IPPP still possesses superior facilities nationally, better overall capacity, and preferred road infrastructure from the port to storage and distribution points for the current Multi-Year Assistance Program (MYAP) partners and WFP.

Specifications. The IPPP is International Ship and Port Security (ISPS)-certified.⁶³ Physically, the port consists of a 240 meter (m.) south pier, three floating piers, open warehousing space of approximately 120,000 square meters (sq. m.), and a draft of seven-nine m.⁶⁴ The south pier typically receives and sends conventional cargo. Bagged rice is one of the main commodities unloaded at this location. The three floating piers are, APN Red (400 feet (ft.) by 200 ft.), APN Blue (400 ft. by 200 ft.), and APN White (340 ft. by 93 ft.), and these piers also typically unload and load containers, although safety concerns reduce the ability to unload cargo quickly.⁶⁵

Storage is notoriously poor at the IPPP facility, and the current MYAP awardees all transport their food aid directly out of the port via Through Bills of Lading to storage sites. ACDI/VOCA and WV use private storage sites in Port-au-Prince, and CRS directly trucks the food aid to its sub-office and storage sites in Les Cayes, located in South Department, approximately four hours from IPPP on mostly well-paved roads. See the storage section below for further details.

Clearance. USAID efforts to improve port efficiency have helped reduce clearance times for vessels arriving at IPPP to within three hours.⁶⁶ On average, it takes 15-25 days to unload vessels.⁶⁷ Humanitarian organizations and key manufacturers receive cargo preferences (classified as a #807 shipment), e.g., total container fees at IPPP are on average US\$855 per container, but humanitarian organizations/cargo pay a special rate of, on average, US\$705 per container. The largest components of these total container fees are stevedoring costs and APN wharfage dues.⁶⁸ United Port Operators consists of four grouped companies (AGEMAR, IMT, Haiti Terminals, and MLH)⁶⁹ that collectively manage the floating piers where the containers are received and their related fees schedules. Seasonal traffic peaks at IPPP in July and November/December because of the increased quantities of goods transported during the beginning of summer and before the end of the year/holiday season. Seasonal slack times generally follow directly after these peak times, in August and January, when demand slightly decreases for transported goods.

62 Key informant, Port-au-Prince, January 2013.

63 USAID-BEST, December 2011, Haiti USAID-BEST Analysis.

64 USAID-BEST, December 2011, Haiti USAID-BEST Analysis. Corroborated by WFP/Haiti during January 2013 USAID-BEST field work.

65 Key informant, Port-au-Prince, January 2013.

66 Key informant, Port-au-Prince, January 2013.

67 Key informant, Port-au-Prince, January 2013.

68 Key informant, Port-au-Prince, January 2013.

69 WFP, February 2012, *WFP Haiti DLCA*.

3.2.2 Cap Haitien

Location. The international port of Cap Haitien is on the north coast of Haiti. It is Haiti's second largest international port and handles less than 10 percent of containers imported nationally (roughly 6,000-10,000 TEUs per year).⁷⁰

Capacity. The port consists of one terminal, and few global shipping lines utilize these facilities.⁷¹ Three vessels can dock at one time. On average per week, the port handles four vessels, and it does not operate during the night.⁷² Cargo typically arrives at the port in containers, and the port's full capacity is approximately 1,000 containers per month. There are no silos, grain elevators, or other mechanical bulk handling equipment available. Private port operators perform handling duties.

Specifications. The Cap Haitien port facility is also ISPS-certified.⁷³ The International Trade platform is the longest of the four quays at 250 m. Boats with a draft of up to nine m. can dock there and roll on/roll off ramps that are 30 m. wide can be used. Storage for this quay includes 2,210 sq. m. of covered storage and 72,000 sq. m. of open storage, which includes 45,000 sq. m. for containers. Overall, this port can receive humanitarian cargo (e.g., WFP brings in roughly 1/3 of its current food aid through this port). However, for the port to be cost-effective, proximity to Cap Haitien is important to moving the goods in-land because the road conditions leading out of Cap Haitien are poor and difficult for trucking transport (excepting National Route (RN) 6 from Cap Haitien to Ouanaminthe).⁷⁴ If the new Title II cycle focuses activities in the north of the country, awardees should consider bringing in commodities directly through Cap Haitien. However, this location would be directly dependent on the actual distribution sites, and their distance from Cap Haitien's port.

Clearance. Unloading cargo at Cap Haitien is generally quicker than at IPPP because of less congestion and significantly lower levels of cargo going through these port facilities. Private port operators, e.g., Cap Terminal SA, undertake handling.⁷⁵ Overall, container fees are approximately US\$660-\$760 per container. This amount can be broken down into an APN wharfage fee of US\$260 per TEU, US\$400 per container for stevedoring/handling fees/customs, and an additional US\$100 per container if they arrive on a non-gear vessel, e.g., there are no cranes on-board the vessel for offloading.⁷⁶ The above fees can also vary depending on how many container(s) are covered per Bill of Lading. Further, Cap Haitien's port does not have an additional floating wharf usage fee or a humanitarian cargo discount. Therefore, expected costs between IPPP (average US\$705 per

container with the humanitarian discount fee) and Cap Haitien (US\$660-US\$760 per container) are similar, although Cap Haitien's expected costs are slightly less as of January 2013. PVOs should use these costs for planning future Title II shipments and they should monitor any changes in port conditions and fees.

3.2.3 Other Ports

Located on the coast just north of Port-au-Prince, Lafiteau is the private port for the main mill in the country, LMH. The January 2010 earthquake damaged the mill and port, but both were rehabilitated and re-opened within two years in December 2011.

Fort-Liberté, Port de Paix, Gonaïves, Anse à Galettes, Petit Goave, Miragaone, Jérémie, Jacmel, St. Marc, Corail Harbor, Anse d'Hainault, La Saline, and Carries are other ports for coastal shipping.⁷⁷ Les Cayes port in southwest Haiti is currently 'inactive' because of damaged piers, according to APN.⁷⁸ The inadequate infrastructure of these above ports (excepting Lafiteau) excludes them as a primary option for receiving Title II commodities for distribution via cabotage, and PVOs should only consider these locations for emergency cases.

However, Fort Liberté's facilities may significantly improve in the near term if planned GoH and international donor investments are undertaken. The head of APN at Cap Haitien in January 2013 stated that Fort Liberté would be a priority for the GoH in developing port facilities for northern Haiti.⁷⁹ Finally, Gonaïves' public/private port facilities are currently inadequate and are not expected to improve in the near term.⁸⁰ Future programming for the next Title II cycle (FY13-FY16) should monitor all port developments for potential logistics implications. Please also see the storage facilities/locations section for further information on Gonaïves.

3.3. INLAND TRANSPORT

Haiti's overall road network is poor but slowly improving, and the map on the next page shows the state of main roads in the country as of November 2012. PVOs should contact WFP and the GoH for up-to date details on evolving conditions of the various individual roads.

The actual network is difficult to estimate, but consists of roughly 3,400 kilometers (kms.) and is loosely classified as:⁸¹

Primary/national network, which connects the main national cities and covers from 650-700 kms. Vehicle traffic (including trucks and cars) averages 1,000-4,000 per day.

70 WFP, February 2012, *WFP Haiti DLCA*.

71 WFP, February 2012, *WFP Haiti DLCA*.

72 Cap Haitien APN field interview during USAID-BEST field trip, January 2013

73 USAID-BEST, December 2011, Haiti USAID-BEST Analysis.

74 USAID-BEST, December 2011, Haiti USAID-BEST Analysis.

75 WFP, February 2012, *WFP Haiti DLCA*.

76 Key informants, Port-au-Prince and Cap Haitien, January 2013.

77 WFP, February 2012, *WFP Haiti DLCA*.

78 WFP, February 2012, *WFP Haiti DLCA*.

79 Cap Haitien APN field interview during USAID-BEST field trip, January 2013

80 Key informant, January 2013, Port-au-Prince.

81 WFP, February 2012, *WFP Haiti DLCA*.

Figure 4. Haiti's Road Status as of November 2012



Source: Created by USAID-BEST, using WFP Logistics Cluster.

Secondary/departmental network, which connects urban areas of lesser importance with the primary/national network. Vehicle traffic averages 200-1,000 per day.

Tertiary/municipal network, which accesses remote areas within

Table 8. Haiti's Primary Road Network

Route	Description	Road Length (kms)	Approx. Driving Time (hrs.)	Road Material
RN 1	PaP*-Gonaives-Cap Haitien	247	5	Mixed Bitumen/Gravel
RN 2	PaP-Leogane-Les Cayes	211	4	Bitumen/Some Gravel
RN 3	PaP-Hinche-Cap Haitien	193	7	Bitumen/Some Gravel
RN 4	Carrefour Dufour-Jacmel	42	1	Mixed Bitumen/Gravel
RN 5	Gonaives-Port de Paix	70	4	Mixed Bitumen/Gravel
RN 6	Cap Haitien-Ouanaminthe	94	1-1.5	Mixed Bitumen/Gravel
RN 7	Les Cayes-Jérémie	94	3	Gravel
	PaP-Malpassee	110	2-3	Mixed Bitumen/Some Gravel
Total		1,061		

Source: WFP Haiti DLCA.

Note: USAID BEST, approx. drive times based on actual times as of January 2013, additionally PaP-Malpassee route added.

*PaP refers to Port-au-Prince and is used in the table to conserve space.

municipalities. Vehicle traffic is low.

However, based on January 2013 field work, the USAID-BEST field team found that certain main routes have significantly improved, compared to conditions immediately after the earthquake. See estimated drive times in table on the left. Notably improved routes over the past few years include: Port-au-Prince-Hinche, Cap Haitien-Ouanaminthe, Les Cayes-Les Anglais, Les Cayes-Jérémie, and RN 2- Côtes-de-Fer.

3.3.1 Capacity

As described above, Haiti's road network is divided into primary, secondary, and tertiary networks. The bulk of traffic occurs on primary roads that typically have vehicle traffic levels approximately five to ten times the levels found on secondary roads. Vehicle traffic levels on tertiary roads are low to negligible depending on the isolation of the locations. Secondary and tertiary routes in Haiti tend to be less well maintained than key primary routes, as seen during BEST field work in January 2013. Trucks and four-wheel drive vehicles are the best choices for the movement of goods and people on the secondary and tertiary routes. Ideally, regular automobiles would only be used on primary roads and within urban areas because of the poor conditions.

There are four main transportation corridors within Haiti: two national and two international.⁸² The two main national ones are RN 1 and RN 2 (see above), and these corridors allow for the transport of goods from north to south, connecting Cap Haitien, Gonaives, Port-au-Prince, and Les Cayes. The two international corridors are on an east/west axis and include Port-au-Prince to Santo Domingo, the DR (400 kms.) through the Malpassee/Jimani⁸³ border post, and the northern corridor of Cap Haitien to Santiago de los Caballeros in the DR (350 kms.) through the Ouanaminthe/Dajabon border post.⁸⁴ The international routes allow for the exchange of goods between Haiti and the DR, as both countries share the island of Hispaniola. These two international corridors are still the busiest corridors for the exchange of goods between the two countries, and were essential in bringing supplies and goods from the DR in the aftermath of the 2010 earthquake, especially through the Malpassee/Jimani border and on to Port-au-Prince. There are also other border crossings between Haiti and the DR, but they generally carry lower volumes of goods than the above two corridors.

3.3.2 Obstacles and Challenges

Haiti's road network poses many obstacles. Although the trucking sector is generally adequate for PVO transport needs throughout the country,⁸⁵ trucking expenses for PVOs are significant and generally higher than for regular commercial

82 WFP, February 2012, WFP Haiti DLCA.

83 The route from Port-au-Prince to Malpassee was challenging as of January 2013 due to flooding of parts of the route.

84 WFP, February 2012, WFP Haiti DLCA.

85 USAID-BEST, December 2011, Haiti USAID-BEST Analysis.



Photo by Fintrac Inc.

Haitians loading and unloading rice just outside of Pont Sondé assembly market. Pont Sondé, Haiti, January 2013.

purposes.⁸⁶ PVOs typically demand conditions beyond normal operating procedures in Haiti, such as 1) making the actual transport company responsible for any losses on commodity/goods; 2) ensuring adequate sanitary/hygiene conditions on trucks, ensuring that no hazardous goods are carried on the trucks to prevent potential contamination; and 3) the trucks exclusively transport commodities/goods for the particular PVO and do not mix multiple shipments within a specific route/load. These additional conditions mandate a premium expense for PVOs, and this fee can be approximately 25-50 percent higher than normal commercial transport rates.⁸⁷

Current MYAP partners report that they generally prefer through bills of lading to transport goods arriving at port and then transfer these goods to their individual storage facilities. This process minimizes risk for the MYAP partner, and places responsibility for in-land transport with the respective shipping companies.⁸⁸ Older American Mack trucks are commonly used for internal transport in Haiti mostly because of their durability and the availability of spare parts.⁸⁹ WFP/Haiti also reports it has recently purchased smaller, seven MT-capacity trucks to improve its trucking capacity and flexibility.

Security poses another significant challenge for PVO operations. Road accidents commonly occur because of poor roads, vehicle conditions (vehicles carrying loads over permissible tonnages), driving abilities, and inadequate or non-existent safety measures (such as missing guardrails, clear signs, lights, reflectors, and painted demarcations).⁹⁰ PVOs also experience problems with theft and hijackings.

86 USAID-BEST, December 2011, Haiti USAID-BEST Analysis.

87 USAID-BEST, December 2011, Haiti USAID-BEST Analysis.

88 USAID-BEST, December 2011, Haiti USAID-BEST Analysis.

89 USAID-BEST, December 2011, Haiti USAID-BEST Analysis.

90 WFP, February 2012, WFP Haiti DLCA.

3.3.3 Routes for Food Aid

The three current Title II awardees are ACDI/VOCA, CRS, and WV. The PVOs are all based in Port-au-Prince and possess significant storage capacity in the general capital area. All three awardees utilize variations on the general hub-and-spoke system for distribution of Title II commodities. Current areas of operation include roughly the southern half of the country. WFP provides additional coverage nationally for food aid distributions, and WFP's operational areas cover targeted zones in all of Haiti's ten departments.

Food aid routes are as follows for the three current MYAP partners:⁹¹

ACDI/VOCA stores its food in Port-au-Prince. It then distributes food aid directly to sites in their various targeted communes of Southeast Department.

CRS directly trucks its food from Port-au-Prince to Les Cayes and then stores it in Les Cayes at two sites (which include four Wiki Hall⁹² storage units, two at each location). CRS distributes as needed to various targeted areas in South, Grand Anse, and Nippes Departments.

WV stores its food in Port-au-Prince, and then stores and distributes at regional sites (see table below) as necessary to sites at Ile de la Gonâve (by boat), the Upper Central Plateau, and the Lower Central Plateau/Artibonite.

Figure 5. Haiti's Main Logistics Depots



Source: WFP Haiti DLCA.

91 Per USAID-BEST field interviews, January 2013, Port-au-Prince.

92 Wiki Hall and Rubb Hall both refer to temporary, non-permanent large tents used for storage and average around 400 MT per tent capacity.

3.4. STORAGE FACILITIES

The national map below shows Haiti's main logistics depots, and the accompanying road network. The January 2010 earthquake and its aftershocks decimated storage facilities in affected areas within Haiti. Storage was a challenge for the GoH, international donors, and PVOs prior to the earthquake, but the resulting damage and destruction from the 7.0 magnitude quake exacerbated the problem. As of January 2013, PVOs report that storage is currently adequate for their normal operations. However, even though the USG is building increased storage at the departmental level (10 Emergency Operations Centers (EOCs) and 10 linked Disaster Relief Warehouses (DRWs), see Section 3.4.3 below for details), storage facilities at present do not have the capacity to respond to a joint GoH, international, and PVO effort if another large-scale humanitarian crisis occurs, e.g., on a scale similar to the 2010 earthquake.

Table 9. Current MYAP Storage (ACDI/VOCA, CRS, and WV), as of January 2013

MYAP Partner	Facility	MT	Total (MT)	
ACDI/VOCA	Shodecosa	3,000		
	Côtes-de-Fer	200		
	Belle Anse	150		
	Thiotte	100		
	Total		3,450	
CRS	PPC/PaP	1,200		
	Cayes office	1,600		
	Gabions (WFP site)	1,200		
	Total		4,000	
WV	Sartres/PaP	3,000		
	Hinche	650		
	Thomassique	650		
	Cerca La Source	80		
	Saltadere	70		
	Cerca Carvajal	70		
	Mirebalais	1,500		
	Pte. Riv. De l'Art.	70		
	Anse a Galet	650		
	Ti Palmiste	50		
	Mare Sucrin	70		
	Total		6,860	
	All 3 PVOS	Total		14,310

Source: ACDI/VOCA, CRS, WV.

3.4.1 Locations

WFP and all three current Title II awardees have storage facilities in greater Port-au-Prince. Detailed information on the current and future storage capacity of WFP and the current MYAP implementing partners shows how storage capacity and strategic location is a necessary condition for 1) effective food aid programming; and 2) effective early warning/disaster risk mitigation planning, especially for Haiti and other disaster-prone countries.

The three current MYAP partners also use storage outside of the capital. Their use of the facilities outside of Port-au-Prince depends on the distance and road conditions to intervention areas for Title II distributions, and storage capacity in or near the same intervention areas.

Although the 2010 earthquake damaged the Shodecosa facility in Port-au-Prince, it has since been repaired. WFP and ACDI/VOCA now use the depot. Other storage space does exist in the capital, but it is typically expensive, insufficiently sized and conditioned, and occasionally unsafe. Some new commercial

Table 10. WFP/Haiti Storage (MT)

	Port-au-Prince	Gonaives	Cap Haitien	Jacmel	Total
Storage	13,650	14,750	7,900-8,200	2,050	38,350-38,650

Source: WFP/Haiti.

warehousing has been built since 2010, but there are still few viable options for PVOs in need of significant, accessible storage space in the greater Port-au-Prince area.

WFP's storage facilities in-country, as of January 2013, total approximately 38,500 MT, a decrease by roughly 20 percent in overall capacity since mid-2011. Port-au-Prince, Gonaives, and Cap Haitien account for roughly 90 percent of WFP's national storage capacity, and the remaining 10 percent is at smaller facilities in Jacmel. The largest storage capacity is at Gonaives. WFP primarily uses private storage facilities at Cap Haitien for food, and public port storage facilities for non-food items.⁹³ All four of the above sites are strategically spaced throughout the country to maximize the ability to quickly and effectively respond to a crisis affecting a particular region.

WFP also reported that it uses Gonaives as a primary storage site and gateway for distributions and targeting neighboring departments. Its port facilities are still very poor at the public and private terminals. Additionally, it does not plan to use this port to import commodities for the near-term, unless the GoH or the international community initiates significant investment.

93 Per USAID-BEST field interviews, Cap Haitien, January 2013.

Storage is adequate for current Title II programming, and present MYAP partners report no major problems. The three partners also have some excess capacity to respond to expected, future emergency needs.

Other large storage sites of note include the Brandt facility in Port-au-Prince (20,000 MT capacity), the Coles facility in Tabarre (12,000 MT capacity) near the Port au Prince International Airport and the US Embassy, and the Shodecosa facility in Gonaïves (12,000 MT capacity).⁹⁴ Additionally, UNICEF (3,860 sq. m.), International Organization for Migration (3,400 sq. m.) and the International Federation of the Red Cross (10,000 sq. m.) possess storage space for humanitarian programming in greater Port-au-Prince that together totals approximately 17,000 sq. m. of capacity.⁹⁵

3.4.2 Specifications

CRS stated that shelf-life for some Title II commodities can pose an issue based on the condition of storage space outside of Port-au-Prince, levels of humidity, and the time in-transit between the US and the distribution sites within Haiti.⁹⁶ For example, Corn Soy Blend (CSB) has been reported in the past to have a shorter-than-ideal shelf life of three to four months in areas typically at a lower elevation because of high moisture/humidity levels, and this time limit may hinder effective distributions.⁹⁷ This issue should be taken into account for program implementation in the next Title II cycle, as 1,000 days program activities will likely require CSB distribution.

3.4.3 Capacity

The 2012 WFP Haiti DLCA (Digital Logistics Capacity Assessment) reports, “relatively reliable commercial storage can be found only in Port au Prince, Gonaïves and Cap Haitien.”⁹⁸ This statement reflects inadequate commercial storage outside the three hubs mentioned above and shows how this paucity of space raises challenges to pre-positioning materials and delivering aid after an emergency. During the USAID-BEST field work in January 2013, key informants mentioned planned future investments for commercial storage in Les Cayes, Jacmel, greater Port-au-Prince, Cap Haitien and Fort Liberté. These potential commercial developments should be tracked for future potential use by Title II Awardees, USAID and the UN, along with EOC and DRW storage facilities (400 sq. meters for each DRW) being built by the USG in all 10 departments.⁹⁹ These centers

94 WFP, February 2012, *WFP Haiti DLCA*.

95 WFP, February 2012, *WFP Haiti DLCA*.

96 CRS field interview during USAID-BEST field trip, Port-au-Prince, January 2013

97 USAID-BEST, December 2011, Haiti USAID-BEST Analysis.

98 WFP, February 2012, *WFP Haiti DLCA*.

99 Note as of BEST January 2013 field work, US Southcom had not fully completed the 10 EOCs and 10 DRWs in all of Haiti’s departments. Per updated email correspondence as of April 2013, EOCs/DRWs are now completed for Les Cayes, Jacmel, Port-au-Prince, Gonaïves, Port-de-Paix and Fort Liberte, and incomplete for Cap Haitien, Hinche, Miragoane and Jeremie.

Table 11. CDAI Sites and Capacity

Site	Department	Capacity (sq. m.)
Petit Goave	West	30
Cap Haitien	North	150
Fort Liberté	Northeast	291
Port de Paix	Northwest	79
Cayes	South	400 (two sites)
Jacmel	Southeast	72
Gonaïves	Artibonite	181
St Marc	Artibonite	92
Jérémie	Grande Anse	200
Hinche	Central Plateau	152 (two sites)
Miragoane	Nippes	50
Total	11 towns, 13 sites	1,697

Source: WFP Haiti DLCA.

will then be handed over to local GoH authorities for disaster preparedness activities.

For another indication of GoH public sector warehousing, the capacities and locations detailed in the table above indicate potential space available in so-called regional warehouses, Departmental Centers for Storage and Inputs (CDAI, *Centres Départementaux d’Approvisionnement en Intrants*).

3.5. IMPLICATIONS FOR TITLE II PROGRAMMING

Haiti’s infrastructure is adequate for the operations of USAID Title II food assistance programming, but many challenges still exist related to port operations, inland road transport, and storage. However, current MYAP and local partners have historically found solutions to existing constraints or limitations. For example, MYAP partners in the southern peninsula changed their respective transport routes to improve food aid delivery and other programming in response to infrastructure damage from Hurricanes Isaac and Sandy.

3.5.1 Ports

For the near future, if port facilities at IPPP are improved and made more competitive, it will be easier and less expensive to import Title II commodities into Port-au-Prince. Further, the GoH and USAID have both prioritized the development of port facilities in the north. As of January 2013, Fort Liberté appeared to be the likeliest candidate for future investment. Future Title II awardees should consider using the Cap Haitien port or Fort Liberté if their development programming targets northern Haiti, and if improved port investments are undertaken.

3.5.2 Inland Transport

Road conditions, especially for some key primary routes, have improved noticeably since the 2010 earthquake. Road conditions could easily degrade given current road usage in Haiti and the

likelihood that future natural disasters could damage these primary routes.

3.5.3 Storage Facilities

Title II implementing partners and WFP should also maintain current storage facilities for future programming needs and for any necessary emergency responses. Maintaining surge storage capacity is essential for efficient future disaster response and mitigation activities.



CHAPTER 4

PROFILE OF COMMODITY MARKETS CRITICAL FOR FOOD SECURITY

Bags of various locally produced rice varieties for sale. Rice is one of the main staple foods in Haiti. Limbé, Haiti, January 2013.

Photo by Fintrac Inc.

4.1. INTRODUCTION

USAID-BEST examined the market for five commodities (rice, beans, maize/maize flour, wheat/wheat flour, and edible oils) considered staple foods in the Haitian diet. The following analysis presents the basic findings on demand and supply, examines the market structure, conduct, and performance for each of these goods, and finally assesses whether future Title II programming should target each commodity in a food voucher system.

4.2. RICE

4.2.1 Overview of Demand and Supply

Demand. Rice is an important food security crop in Haiti. Before trade liberalization in 1986, regional patterns of food consumption were based on a wide variety of root, tuber, and leguminous foods complemented by vegetables and fruits. Today, rice consumption is predominant, but the majority of rice consumed in Haiti (80-90 percent) is imported. In urban and rural areas, people prefer rice (whether local or imported) over other staples such as maize, millet, and tubers. The change in consumer diet and the rapid growth of the urban population continue to drive the demand for rice, and especially so in the metropolitan area of Port-au-Prince. Although all economic strata consume rice, because people primarily eat what they produce, consumers in areas of high maize, sorghum, tubers, and plantain production eat rice more regularly when their stocks

run out.

The Haitian population consumes mostly milled rice. Different types (yellow local, white local, and imported white) are consumed mixed with beans (either whole or pureed). Haitians generally prefer locally-produced rice,¹⁰⁰ but price is the most important factor influencing demand. Many better off consumers with higher purchasing power prefer good quality local rice, especially parboiled “yellow rice.” Consumers buy lower-priced imported rice for consumption during weekdays, whereas they will consume local rice on special occasions (e.g., with certain meals and/or during weekends).¹⁰¹ The poorest consumers though are obliged to buy mostly inexpensive poor quality local rice and imported broken rice.

Per capita rice consumption was estimated at 50 kilograms (kg) in 2012,¹⁰² which represents approximately a 9 percent increase from 46 percent in 2009. Currently, the total annual demand for rice in Haiti is estimated at 520,660 metric tons (MT).

Supply. Domestic production and imports account for the rice consumed in Haiti. The country produces mainly swamp rice. More than 70 percent of production occurs in the Artibonite

¹⁰⁰ Several brands are available in the market. Consumers in cities tend to prefer the high quality local varieties (*sheila*, *shelda*, *madan gougousse*, and *la crete*), but buy imported quality rice because it is cheaper.

¹⁰¹ USAID-BEST, August 2010, Haiti USAID-BEST Market Analysis.

¹⁰² MARNDR, 2005, Identification de Creneaux Potentiels dans les Filieres Rurales Haitiennes: Riz, Mais, Sorgho, Haricot, Arachide, Pois Congo, Banane.

Table 13. Rice Imports in Haiti (MT), 2009-12

Type	2009	2010	2011	2012				
	Volume	% of Total imports						
Hulled	347,701	87	359,005	90	428,851	94	400,486	92
White/Semi white	36,206	9	19,075	5	16,957	4	33,430	8
Broken	14,931	4	18,274	5	9,700	2	2,911	0
Total	398,838	100	396,354	100	455,508	100	436,827	100

Sources: AGD, CEI-RD.

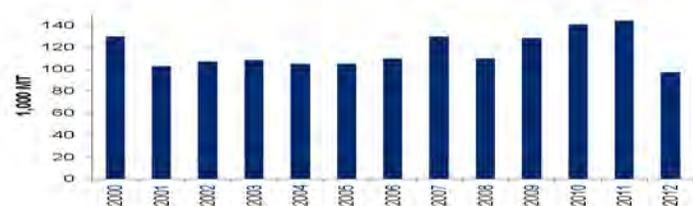
Valley.¹⁰³ Haitians also grow mountain rice. In 2005, the total acreage for mountain rice was estimated at 3000 hectares (ha),¹⁰⁴ but this area is declining rapidly due to environmental degradation. Haiti rice harvest periods are indicated in the figure below.

Figure 6. Rice Harvest Periods in Select Production Areas

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Artibonite valley (Artibonite)												
Grison-Garde (North)												
Saint-Raphaël (North)												
Maribaroux (North-east)												
Torbeck (South)												
Abraham (Nippes)												

Source: Bayard, 2012.

Despite substantial financial and technical support provided to certain geographical areas, rice production has not improved significantly over the last 10-15 years. According to official data, estimated production has remained relatively stable. Figure 7 presents the evolution of paddy rice production in Haiti and shows that paddy rice production has been increasing since

Figure 7. Haiti Rice Production (1,000 MT), 2000-11

Source: Created by USAID-BEST, using data from MARNDR.

2009 to reach 144,603 MT in 2011. However, this number declined by about 26 percent¹⁰⁵ in 2012 mainly because of bad weather conditions that year.

103 Other swamp rice producing areas include: Torbeck, and Saint-Louis du Sud in the South; Saint-Raphael, and Grison-Garde in the North; Maribaoux in the Northeast; and Abraham and O'Houk in Nippes.

104 MARNDR, 2005, Identification de Creneaux Potentiels dans les Filières Rurales Haïtiennes: Riz, Mais, Sorgho, Haricot, Arachide, Pois Congo, Banane.

105 MARNDR, 2005, Identification de Creneaux Potentiels dans les Filières Rurales Haïtiennes: Riz, Mais, Sorgho, Haricot, Arachide, Pois Congo, Banane.

Despite relatively stable domestic production, rice consumption has significantly increased in the country over the last 10-15 years. Imports account for most of the availability, e.g., domestically produced rice represented only 13 percent of total availability in 2012. The following table shows the data reported for production, imports, and exports to provide an idea of the total rice availability in-country over the last four years. Total rice consumption has averaged 484,872 MT per year.

Table 12. Rice Availability in Haiti (MT), 2009-12

Source	2009	2010	2011	2012
Domestic	77,112	84,645	86,762	64,204
Imports	398,838	396,354	455,508	436,827
Total	475,950	480,999	541,508	501,031
Re-exports	15,000	15,000	15,000	15,000
Availability	460,950	465,999	526,508	486,031

Source: GoH MARNDR and Customs, IDB, and USAID-BEST calculations.

In general, domestic production of milled rice has started to increase; since 2008 it rose from 77,112 MT in 2009 to 86,762 MT in 2011. Production declined to around 64,204 MT in 2012 because of Hurricanes Isaac/Sandy and a severe drought. However, domestic production accounts for only eight percent of the per capita consumption on average. Rice imports have risen significantly in Haiti over the last 25 years as a result of trade liberalization and a drastic reduction in border protection in 1995 (see Table 13 above).

Official data reports total imports averaged 421,882 MT over the last four years.¹⁰⁶ For 2012, Haiti imported an estimated 436,827 MT, and of this total, commercial imports represented 93 percent and food aid 7 percent. WFP, the Bureau of Monetization (BDM, *Bureau de Monétisation*), and Food for the Poor were the top three importers of food aid. That same year, hulled rice represented 92 percent of total rice imports. Paddy rice imports are minimal and are likely used for seed.

The US is the main supplier of rice as it accounted for 88 percent of total imports in 2012 of hulled rice (see Table 14 below). The Government of Japan (GoJ) provided 8,660 MT to the BDM for monetization, but because the GoJ sourced this

106 E-mail correspondence with AGD, January 2013.

rice from the US (according to the BDM), the actual percentage of US rice is about 90 percent of imports. Informal trade between Haiti and the Dominican Republic (DR) accounts for a significant percentage of rice imports. Thousands of young Haitian women purchase broken rice at the border for their livelihood, and traders across the country travel to the border for these sales. Improvements in major roads and a high level of unemployment have boosted these cross-border activities.

A fair amount of US imported rice is sold to the DR on an informal basis. This type of trade is significant all along the border. In Ouanaminthe, wholesalers provide one-day credit to merchants willing to sell US imported rice from Haiti in the DR during open market days. The volume of rice transferred to the DR is not accurately known. In 2001, rice exports to the DR were estimated at 12,800 MT¹⁰⁷ and this number rose in 2007 to about 15,000 MT with an additional 2,000 MT locally-produced.¹⁰⁸ According to informants familiar with the rice sector, exports to the DR have increased for imported rice and have almost disappeared for locally-produced rice so rice exports to the DR on balance are still about 15,000 MT.

4.2.2 Market Structure

There are two main rice market chains (imported rice and domestic production) and two minor rice market chains.¹⁰⁹

Imported rice. This chain is the most important source representing at least 80 percent of all the rice consumed in the country. Port au Prince is the main entry point. Rice coming through this point is generally imported in bulk and re-packaged at the port into 50 and 25 kg bags. Another important port of

entry is Miragoâne, which supplies to Port-au-Prince, Southeast, and South Departments. Supply entering at Cap-Haitien is usually pre-packaged rice that remains in the North, Northeast, and Upper Artibonite Departments. There are at least 10 rice brands in the market; *Tchako*, *Bull*, and *Mega* are the top three.

Three main importers based in Port-au-Prince handle approximately 70 percent (at least 96,000 MT per year per importer) of all rice imports. More than twenty smaller importers operating in various ports (Cap-Haitien, Miragoâne, Port au Prince) handle the remaining imports. These importers sell to several large wholesalers, who are able to handle more than 1,000 bags of rice per day. Large wholesalers sell to around 200 smaller, second-level wholesalers and retailers in Port-au-Prince and surrounding provinces. Second-level wholesalers sell to a network of numerous *Madam Saras* and retailers. Retailers also sell to smaller, second-level retailers who then sell to local markets by the marmite¹¹⁰ and cup to consumers.

Domestic chain. Production from the Artibonite Valley represents around 12 percent of all rice consumed in the country. This chain includes 130,000 farmers mostly from the valley who directly employ another 30,000 laborers. Generally, farmers in the Artibonite sell paddy rice at farm gate to rural *Madam Saras* or mill owners. The traders collect, dry, mill, transport, and redistribute the rice in l'Estère and Pont Sondé to *urban Madam Saras* from Port au Prince, Gonaïves, and Cap-Haitien. In some other regions, producers dry, mill and sell the rice to local *Madam Saras* who redistribute it in the region.

In 2010 around 221 mills, 116 warehouses, and 31 women's groups were involved in marketing rice in the Artibonite Valley.

Table 14. Origin of Rice Imports (% of Imports), 2009-12

Country	2009	2009	2009	2010	2010	2010	2011	2011	2011	2012	2012	2012
	hulled	white/ sw*	broken	hulled	white/ sw	broken	hulled	white/ sw	broken	hulled	white/sw	broken
US	86	28	1	78	28	0	77	34	0	88	58	92
Brazil	4	0	2	0	5	0	14	5	0	2	1.5	0
Japan	4	0		3	0	0	0.0	0	0	2	0	0
Guyana	2	28	63	2	16	8	0.18	15	0	0	1	0
India	1	0	0	0	0	0	0	0	0	0	15	0
Pakistan	1	0.37	2	0	1	0	0.11	0	0	0	0	0
Surinam	1	16	0	3	17	0	0	12	0	0	0	0
DR	0.03	0	14	4	0	91	0	0	99.9	5	18	8
Canada	0.04	1	1	0	0	0	0.03	0.17	0	0	0.1	0
Uruguay	0	14	15	0	2	1	3	9	0	0.47	0	0
Others	0.93	13.63	2	9	31	0	6	23	0	2	7	0

Source: AGD; CEI-RD.

Note: USAID-BEST is confirming the meaning of "sw" as a designation.

107 RESAL Haiti, 2001, *Appréciation des Echanges Commerciaux Agricoles Transfrontaliers entre la RD et Haiti*.

108 ANDAH, 2007, *La Filière Riz en Haiti*.

109 USAID-BEST, August 2010, *Haiti USAID-BEST Market Analysis*.

110 Marmite = 2.7 kg.

The Brandt Group is installing a small-size mill in the Savane Desolé area which is operational as of February 2013. It will begin processing rice during the next harvest season at a capacity of 2.5 MT of paddy per hour; its capacity will be upgraded at 7.5 MT per hour in 2014. The mill is expected to produce 22 to 23,000 MT per year. The rice will be distributed through a network of more than 200 wholesalers already linked to the Group via vegetable oil sales and other products.

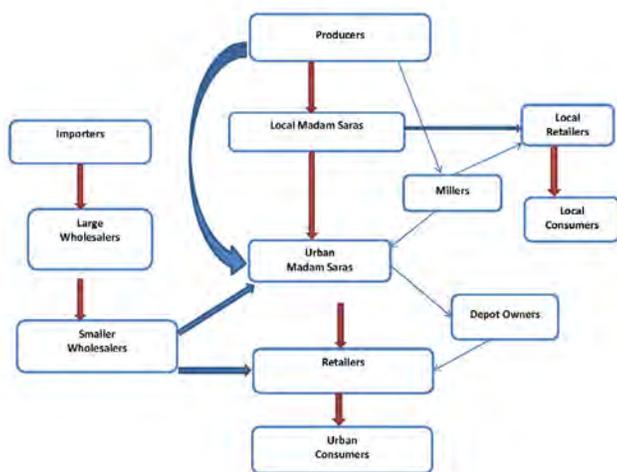
Among production in Haiti, the four higher quality rice varieties are *sheila*, *shelda*, *madame gougousse*, and *la crête*. *Madame gougousse* and *la crête* dominated rice production until the mid-1990s, but almost disappeared when the *empty head* disease hindered rice production.¹¹¹ The two varieties are still being commercialized in small quantities in some markets. During field visits in January, they were observed in Cap-Haitien market and Croix-des-Bossales. Today, *Madam Saras* predominantly sell *sheila* and *shelda* on the market, but *TCS* is the most widely grown variety in the country.

The market for locally produced rice is competitive at all levels. A large number of actors are involved at the different segments of the chain. Price seems to be determined by supply and demand. However, several producers' organizations in different regions are involved in local procurement programs where prices are set by bid or fixed by the buyer.

Imported rice is dominated at the top by few importers who have some power in setting prices. The market is more or less competitive at the wholesale level and very competitive at the retail level. With high unemployment, more young men and women are engaged in trade as the sole activity.

The figure below illustrates the two main rice marketing

Figure 8. Two Main Rice Marketing Channels



Source: Created by USAID-BEST.

¹¹¹ Empty head disease is caused by a mite called *Steneotarsonemus spinki* and a fungus called *Sarocladium oryzae*. Dark-brown spots appear on the panicles and grains in the upper portion of the stem. When affected, the grains are partially filled or completely empty in the mature plants.

channels discussed.

Two minor chains. Small local markets organized around the production areas of St Raphael, Grison-Garde, Maribahoux, and Torbeck represent around eight percent of all rice consumed. There have been some investments in irrigation, inputs distribution, and processing in recent years to improve production in those areas. In Torbeck, for instance, the Taiwanese Cooperation supported a three-year project (recently completed in 2012) that installed eleven small mills with a processing capacity of eight MT per day each one. Rice marketed in this chain is generally produced and consumed regionally.

The second minor chain is the processing of rice scrap (*cabecit*) from the DR. It represents less than one percent of all rice consumed and is sold mainly on the local markets of Central Plateau and on the border area. Broken rice supplies from the border town of Ouanaminthe are also sold in Cap Haitien.

4.2.3 Market Conduct

There are no legal barriers to enter the import rice market in Haiti. However, there is a 3 percent tariff augmented by a 16 percent custom fee levied on rice imports. As of 2012, three of the seven main importers control 70 percent of the market and each handles an average of 102,000 MT in 2012. All of them sourced their rice from the US. These top three importers seem to have enough power to set rice prices in Haiti, but they tend to follow international prices.

Importers and wholesalers have the highest marketing margins and tend to work closely. In some cases, wholesalers receive credit from importers. Market entry into the rice chain is generally available just to those wholesalers with enough financial capital. Large wholesalers have the capacity to stock significant volumes and serve markets directly. This ability allows them greater influence over retail prices. However, because wholesalers purchase in US\$ and sell in Haitian Gourdes (HTG), they face exchange rate risks.

Large wholesalers in Port au Prince and Cap-Haitien have their own trucks to distribute rice to smaller wholesalers in local and regional markets. Large importers try to capture market share by delivering the rice directly. Marketing margins for the bottom line traders are difficult to quantify. Second-level wholesalers and second-level retailers generally sell different products (rice, wheat flour, vegetable oil, etc.) which help them offset any loss from marketing rice.

Most wholesalers at markets visited throughout the country indicate that they get credit to carry out their businesses. Importers and large wholesalers have access to credit from commercial banks and small wholesalers and retailers receive credit from microfinance institutions and from their respective suppliers. In every region visited, traders mentioned the *Association pour la Coopération avec la Micro Entreprise, Société Générale de Solidarité, MICROCREDIT NATIONAL, and Fondasyon*



Photo by Fintrac Inc.

Two varieties of local rice are displayed. Shelda rice is on the left and Sheila is on the right. Limbé, Haiti, January 2013.

Kole Zepol as the main credit providers.

In the domestic chain, market participants are price takers. No single group has enough power to influence prices. However, for imports, the government intends to introduce initiatives that allow them to source rice from countries besides the US so as to stabilize the price on the market.

Late last year, the Government of Haiti (GoH) signed an agreement with Vietnam to import up to 300,000 MT of rice per annum based on a consumption level of 450,000 MT per year and a domestic production estimated at 150,000 MT.¹¹² A first stock of 15,000 MT is scheduled to arrive in March of this year. The rice will be stored at the BDM facilities, which have a capacity of 70,000 square feet. BDM plans to build regional storage sites to facilitate rice distribution in all regions. The plan is not well developed yet, but it is believed that the rice will be sold only to importers who will resell to wholesalers for distribution throughout the country. The floor and ceiling for prices will be set before the bidding process.

4.2.4 Market Performance

Markets appear to function well throughout the chain. Wholesalers tend to specialize either in imported rice or in local rice, and *Madam Saras* commercialize locally produced rice. Rice retailers sell both imported and domestic rice. Throughout the country, imported rice was largely available whereas domestic rice was present in substantial amounts only in some markets that the team visited (Croix-des-Bossales, Croix-des-Bouquets, Artibonite, Cap-Haitien).

Domestic rice quality is not uniform because no standard exists. Within a given variety, quality varies depending on drying and boiling conditions. Potential buyers test rice quality by

examining, touching, smelling, and tasting the grain. Their choice is based on grain length, fatness, and smell. Buyers often bargain to obtain better prices. Local rice is sold by pot (marmite) at all levels and by cup at retail level. Imported rice is sold by bags of 25 and 50 kg at the wholesale level and by pot and cup at the retail level.

For local varieties, only prices of *sheila*, *shelda*, or *TCS* are regularly collected and recorded. However, other locally produced varieties may be present at certain periods of the year. Data collected during field visits in January show the presence of several local varieties alongside imports, although some of these local varieties were observed only in small quantities (see table below).

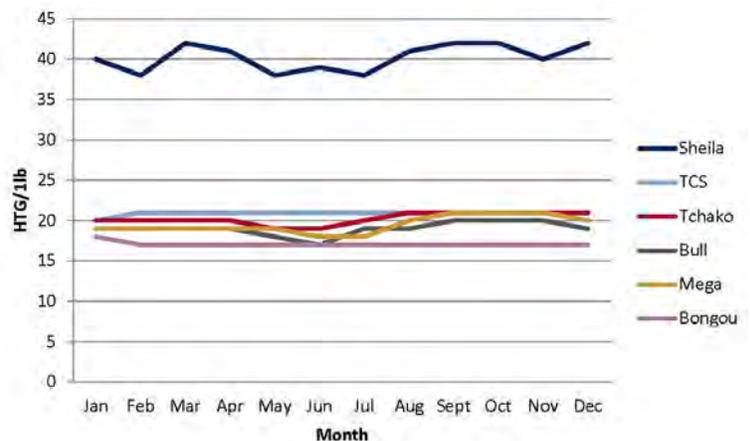
Table 15. Rice Price (HTG/lb) in Croix-des-Bouquets, January 2012

Type	Price
Sheila from Artibonite	42
TCS from Artibonite	25
Gwo Diol (low quality variety from Artibonite)	21
Buffalo low quality variety from nearby Thomazeau commune	18
Broken rice from the DR	15
Imported rice (from US)	17-20

Source: USAID-BEST field visit, January 2013.

Prices of imported rice are generally lower than those of local varieties throughout the country. Data from the National Committee for Food Security (CNSA, *Coordination Nationale pour la Sécurité Alimentaire*) show that rice prices for *sheila* are the highest in all markets, while *TCS* prices are closer to imported rice prices. Figure 9 shows the prices of local and imported rice in the Croix-des-Bossales market.

Figure 9. Local vs. Imported Rice Retail Prices (HTG/lb) in Croix-des-Bossales



Source: CNSA.

112 This assumes local production contributes 25 percent of total rice consumption in Haiti; a figure which is not in line with most other estimates.

Price of local *sheila* is twice as much as that of local *TCS* and imported brands. In 2012, average monthly price of one pound *sheila* was about 40 HTG versus 21 HTG for *TCS* and 19-20 HTG for imported brands in Croix-des-Bossales. *Sheila* prices were more volatile than local *TCS* and imported rice prices. The price for *sheila* peaks just before harvests in March and September/October and slightly declines during the harvest months. Prices of imported rice were relatively stable throughout the year except between April and July where prices tended to decrease. Broken rice is generally the cheapest in the markets. It dominates the rural markets near the border with the DR as low-income consumers in these rural areas mainly eat this product.

Prices also vary according to location, brand, and quality. (See Annex 2 for detailed graphs of prices for local varieties.) Transaction costs seem to play a significant role in the setting of prices. Rice retail prices were relatively high in almost all markets. The lowest prices were observed in Croix-des-Bossales market for *sheila* and imported brands, and in Cap-Haitien and Fond des Nègres for *TCS*. The highest prices were observed in the southern markets (Jérémie, Jacmel, Cayes and Fond des Nègres) and in Hinche for local *sheila*. The highest prices were observed in Ouanaminthe for local *TCS* and imported rice (*Tchako* and *Bull*). Rice prices in Ouanaminthe market may be influenced by the exchanges with the DR that take place at the border. Prices of all brands (local and imported) have increased because of the negative effects of natural disasters on domestic production and the uncertainty created by government plans to import large quantities of Vietnamese rice.

4.2.5 Implications for Title II Programming

Future awardees should thoughtfully consider the targeting of local rice under the planned voucher system. Although local rice is available in large quantities, especially during harvest seasons, the higher quality rice varieties (*sheila* and *shelda*) are considered luxury goods and would not be appropriate to include in a safety net program. However, other locally-grown varieties can be considered for a planned voucher system. Therefore, depending on the objectives of the program and the specific variety beneficiaries might buy, rice could be one of the local commodities targeted in a basket of goods tied to vouchers, at specific periods of high production.

The Ministry of Agriculture, Natural Resources, and Rural Development (MARNDR, *Ministère de l'Agriculture, des Ressources Naturelles et du Développement Rural*) considers the rice sector one of the value chains to be developed so as to achieve economic growth and poverty reduction. The objective is to develop strategic value chains for those commodities directly linked to food security (rice, maize, sorghum, beans and tubers). In terms of crop production, MARNDR seeks to locally produce an additional 150,000 tons of milled rice (250,000 MT of paddy rice) by 2015.

Currently, Oxfam supports the recently-formed Haiti National Federation of Men and Women Rice producers. This

organization was created by 55 participants representing several farmers associations in the major rice production areas. It intends to increase rice production to 400,000 MT within the next five to seven years by doubling production acreage, providing financial and technical support to producers, and establishing at least one mill with a capacity of processing 20 MT per day in 10 geographic departments.

The GoH decision to import 300,000 MT of rice annually is considered a mixed policy that sends a different message from that of the MARNDR and farmer associations that seek to promote local production.

4.3. BEANS/PULSES

4.3.1 Overview of Demand and Supply

Demand. Beans are an important food crop in Haiti and farmers produce a range of types, including black, yellow, white, red mottled, and small quantities of pinto beans. Rural and urban households regularly consume beans and prefer locally and commonly produced black beans. Imported pinto beans are the least preferred type of beans. If consumers cannot access any kind of beans, then they will eat pigeon peas and cowpeas (only available during the first six or seven months of the year) as substitutes.¹¹³ Beans represent a major source of protein for low-income families who consume it as a purée (*sauce pois*) or mixed with cereals. In addition to rice, consumers also eat beans

PIGEON PEAS AND COWPEAS

Pigeon peas, cowpeas, and lima beans are also produced in large quantities, mainly in drier areas where beans cannot be grown (sections of the Central Plateau, North, Northeast, Northwest, and Southwest regions.) They are often intercropped with maize.

Pigeon pea harvest time depends mainly on the variety. Varieties planted in Haiti are day-length sensitive and there is only one harvest period. Most of the crop is harvested between mid-December and mid-January. Quantities produced and marketed are much lower than for beans and supplies do not last to cover the second part of the year.

Cowpeas are harvested green, and consumed with the pod beginning in May. Dried beans are available on the market in most areas (except for the North) between June and July. Cowpeas are also prone to insects in the field and when stored after harvest.

Total yearly production of these pulses was approximately 50,000 to 60,000 MT in the past 10 years according to MARNDR estimates. In 2012, 30,000 MT of pigeon peas and 25,000 MT of cowpeas were produced. Pigeon peas and cowpeas may be eaten fresh or dried. In border regions, fresh pigeon peas are also informally exported for canning in the DR.

113 USAID-BEST, August 2010, Haiti USAID-BEST Market Analysis.

and *sauce pois* with maize meal and sorghum; any increase in the demand for those complementary commodities will raise demand for beans.¹¹⁴

Estimates for yearly per capita consumption of beans vary between 8 and 12 kg.¹¹⁵ Local production meets the majority of demand for beans, e.g., in 2012, approximately 75 percent of beans consumed came from in-country production. The remainder that year was filled through commercial imports and food aid (primarily from the US).¹¹⁶

Supply. In Haiti, beans are predominantly produced in humid and sub-humid mountainous regions (above 400 meters) and in irrigated plains. In 2012, over 150,000 ha of beans were planted. The figure below shows spatial distribution of area cultivated to beans in the country.

Figure 10. Spatial Distribution of Area Cultivated to Beans, 2012



Source: MARNDR, 2012..

Large quantities of local beans are available in rural and urban markets between April and June, and September-November. Irrigated production comes to market starting at the end of January but irrigated areas in Haiti are less than 5 percent of cultivated area.

Production. Beans are a cash crop in Haiti, and are sold on local markets immediately after harvest. Producers utilize less than 20 percent of their yield as self-consumption or seed.

In 2012, according to MARNDR, total bean production was around 80,000 MT, representing approximately 75 percent of total supply. However, certain factors also constrain local

114 USAID-BEST, August 2010, Haiti USAID-BEST Market Analysis.

115 International Rescue Committee, February 2010, The Market System for Beans in Haiti. CNSA, 2012, Evaluation de la Campagne Agricole de Printemps 2012. Ministry of Agriculture 2012.

116 International Rescue Committee, February 2010, The Market System for Beans in Haiti. On average, in-country production accounts for 80 percent of supply, commercial imports 10-15 percent, and food aid 5-10 percent.

production: 1) high cost of seed and limited cash flow for purchase of seeds; 2) absence of significant research on fertilization and genetic improvement in the past 20 years; and 3) limited irrigation water availability throughout the country during the winter because of poor infrastructure and water management

Drought and hurricanes in 2012 damaged irrigation infrastructure and severely hindered local production. Consequently, the 2013 seasons now face a pronounced shortage in seeds.

Imports. According to official import data, beans imports to Haiti have averaged 16,575 MT per year in the last 11 years and arrive mainly through regional maritime ports (Miragoâne, St-Marc, Cap Haitien) and across the DR border. Quantities declared are unreliable. Effective levels of imports for these points of entry could be more than triple that of official figures.

Most imported beans normally come from the US. Informal sector imports from the DR are largely unreported though and have been increasing in recent years.¹¹⁷ Official figures for imports of various types of beans suggest a total of 9,700 MT in 2012. Heavy losses from climatic events during the year seem to have created new informal import circuits, mainly through the border markets of Jimani and Anse à Pitres which supply the southern peninsula. Taking this point into account and considering the high proportion of undeclared and under-declared imports in maritime and land points of entry, total imports of beans could stand well above 25,000 MT.¹¹⁸ Imports could thus represent around 25 percent of local consumption in 2012.

Exports. *Madam Saras* informally export beans (usually from the Northeast Department) in small quantities to the DR.

Food Aid. Imports of beans for food aid programs totaled 2,087 MT in 2012 according to AGD figures, representing 22 percent of all bean imports. Of the bean imports for food aid, 82 percent was imported by Food for the Poor for their programs. Six other private voluntary organizations (PVOs) and religious institutions account for the remaining 18 percent.¹¹⁹ In 2012, WFP distributed 5,876 MT of beans, and USAID Multi-Year Assistance Program (MYAP) partners distributed approximately 1,800 MT of lentils, yellow peas, and green peas as the pulse component of the ration.

Importantly, WFP's substantial bean imports were not found in AGD import data. WFP/Haiti currently does not engage in LRP purchases of beans because of the high cost and logistics involved in collecting large quantities of local beans and guaranteeing quality.¹²⁰

117 GoDR, 2013, Centro de Exportacion e Inversion de la Republica Dominicana. www.cei-rd.gov.do/ceird/, accessed March 2013.

118 Key informant, Port-au-Prince, January 2013.

119 E-mail correspondence with AGD, January 2013.

120 E-mail correspondence with WFP/Haiti, March 2013.

Table 16. Sources of Imported Beans for Formal Imports (%), 2004-12

Country	2004	2005	2006	2007	2009	2010	2011	2012
Albania	0	6						
China	0	5				11	17	6
Brazil	0	0		0	0	1		2
US	94	86	5.70	77	93	80	72	71
DR	0.002	0		15	6	4	9	18
Other: Canada, France, Italy, etc.	5.998	3	2	8	1	4	2	3

Source: AGD, 2010; Paul, 2009.

4.3.2 Market Structure

The structure of the beans market suggests a high degree of competition with minimal barriers to entry and exit. Rural traders (*rural Madam Saras*) dominate the markets for local beans. They collect beans from more than 350,000 smallholder farmers at farmgate or in small rural markets and then transport the product to regional markets. Urban *Madam Saras* purchase beans and other food commodities from rural *Madam Saras* at the regional markets and transport beans directly to urban markets. The Salomon and Croix-des-Bossales markets are important points of sale for the large traders in Port-au-Prince, where they sell to smaller wholesalers and retailers. Rural *Madam Saras* are aware of seasonal production patterns and are likely to travel to surplus production areas, but they often prioritize markets where they have strong social networks.

A large number of retailers purchase small quantities of imported beans from wholesalers and local beans from *Madam Saras* that they sell directly to consumers. Like smaller



Photo by Fintrac Inc.

Pulses are displayed for sale. Port-de-Paix, Haiti, January 2013.

wholesalers, they sell a wide variety of food products and supply both local and imported beans.

Many actors are involved in the distribution of beans imported through formal channels. In 2012, ten commercial importers purchased between 100 and 750 MT each; together, their purchases represented less than half of official commercial imports. PVOs and religious organizations accounted for 20 percent of formal sector imports. The main importers sell primarily to some 30 to 50 first-level wholesalers established in Port-au-Prince. Those wholesalers are linked to hundreds of secondary wholesalers located in different markets across the country. Additionally, hundreds of informal traders dealing on Dominican border markets typically purchase quantities in the order of 0.5 to 5 MT per transaction.

4.3.3 Market Conduct

Both the markets for local and imported beans appear competitive because a large number of actors participate at different levels of the production and distribution channel.

However, *Madam Saras* with greater access to capital may engage in speculative behavior for short periods of time and invest in stored commodities during seasonal shortages. Such behavior does not usually significantly distort prices along the chain.

While the import market has a smaller number of actors, there is no reason to believe there are significant legal barriers preventing entry. According to official figures, the largest importer in 2012 was Food for the Poor (1,700 MT or 18 percent of official import figures) and the second was Christo SA (private) with 728 MT (7.5 percent). The major constraint that would limit entry is lack of capital. Entry at the retail level for imported beans is less challenging.

4.3.4 Market Performance

According to CNSA data, the price of red mottled beans, white, and yellow beans are usually higher than the price of black beans as they are demanded mainly by higher income Haitian consumers. Because of limited demand, therefore, imports of these types are generally minimal. However, significant quantities of imported Dominican red and yellow beans were observed in different markets during the field visit.

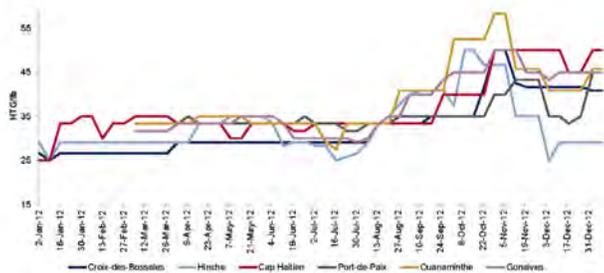
Prices of beans are highly seasonal. Farmers in need of cash cannot afford to store beans for long periods after harvest. Prices are the highest during planting seasons. They decline on all markets during harvest periods (April-June, September-October) and rise one or two months later depending upon the size of the harvest in specific locations.¹²¹

The combined effects of drought and hurricane damage have caused prices to rise constantly since July 2012. In January 2013, bean prices were at record levels, varying between US\$2,500-3,000 per MT. An important factor currently driving up the price of beans is the low level of yields in 2012 of cheaper pigeon peas because of hurricane damage in production regions.

¹²¹ USAID-BEST, August 2010, Haiti USAID-BEST Market Analysis.

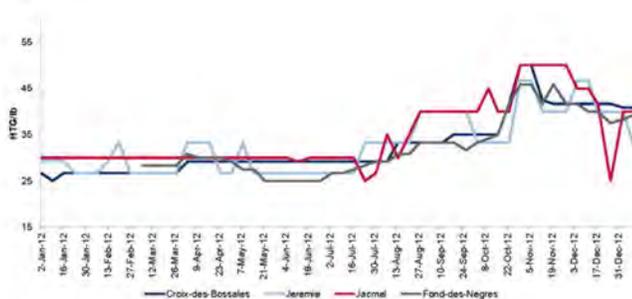
The two figures below show seasonal prices for black beans in northern and southern regional markets, respectively. The graphs show that after Hurricane Isaac in August 2012 the price of black beans increased significantly in these two regional markets.

Figure 11. Price of Black Beans in Northern Markets (HTG/lb), January 2012-January 2013



Source: Created by USAID-BEST, using 2012-2013 data from Fews Net and CNSA.

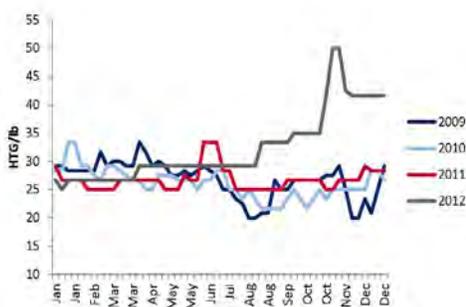
Figure 12. Price of Black Beans in Southern Markets (HTG/lb), January 2012 to January 2013



Source: Created by USAID-BEST, using 2012-2013 data from Fews Net and CNSA.

The hike in the price of black beans after August 2012 for both southern and northern markets is exceptional compared to previous years. Taking Croix-des-Bossales as an example, Figure 13 below shows the price of black beans in all years besides 2012 followed a consistent trend. However, Hurricanes Isaac

Figure 13. Black Bean Monthly Prices in Croix-des-Bossales (HTG/lb), January 2006 to January 2013



Source: Created by USAID-BEST, using 2012-2013 data from Fews Net and CNSA.

and Sandy in 2012 caused prices to increase disproportionately after August. This spike is unusual compared to past years.

4.3.5 Implications for Title II Programming

Beans could be part of the food voucher commodities as they are a high protein food in a diet that often lacks this element, particularly for children and adolescents. Beans are also a cheaper source of protein than milk or meat products. There would be strong demand for beans in a voucher program, particularly because lower income families generally cannot afford to purchase quantities that are necessary for a balanced diet. A high proportion of beans consumed are locally produced and increased demand could stimulate production if targeted support is provided and interventions are correctly implemented.

Pigeon peas and cowpeas could also be included as an even cheaper source of protein but would only be available during the first six or seven months of the year.

4.4. MAIZE AND MAIZE FLOUR

4.4.1 Overview of Demand and Supply

Demand. Maize is the most widely grown crop in the country and a basic food in most rural areas. Since low-income households predominantly consume it, maize is a major contributor to food security. It is considered a substitute for rice so households are likely to switch from rice to maize when experiencing negative income shocks. In rural areas, contrary to urban centers, consumers eat maize more than rice when it is available, and they prefer maize over sorghum, which is often grown in association with maize as a mixed crop.

Consumers eat maize on the cob, roasted, or boiled. Typically, urban street vendors will sell these maize products as a cheap food. Boiled and roasted maize absorb 5-10 percent of locally produced grain.¹²² Grain can be also lightly fermented in water, then ground to produce AK100 as a cottage industry product. Another variant is AK1000, a dry formula from ground corn reinforced with protein through the addition of ground beans.

However, the two main maize products are coarse maize meal and flour, both of which are derived from milling dry maize grain. Maize flour is finer and is typically cooked as porridge. Consumption of meal and flour is estimated at 150,000 MT for 2012, (15 kg per person) using Ministry of Agriculture local production figures and taking into account post-harvest losses and informal imports. Haitians generally prefer imported maize meal and flour over the local equivalents because they contain fewer impurities, cook faster, keep well without refrigeration, and reportedly taste better.

Supply. Maize grain is processed in hundreds of small hammer mills generally located in the vicinity of rural markets. These

¹²² IRAM, 2012, *Analyse de la Filière Maïs en Haïti et Appui au Positionnement des Organisations Paysannes*.

operations have a maximum milling capacity of around 0.5 MT per hour. To separate meal and flour from bran, traders winnow by hand. *Les Moulins d'Haiti* (LMH) is the only large industrial mill for maize and has been in operation since the end of 2011. It has a capacity of 35,000 MT of grain per year, representing more than 10 percent of the country's maize milling capacity. This mill also supplies a neighboring animal feed producer, Haiti Broilers.

MARNDR is revising its data collection and analysis methods, but its information currently suggests an increase in maize production since 2008 to account for more than half of all cereal production. More than 60 percent of maize production is marketed, according to recent studies, but this proportion varies greatly with region and size of farm holding.¹²³

MARNDR maize production statistics for the past decade are unreliable, and USAID-BEST believes that average national maize production normally falls in the range of 190,000-290,000 MT per year, based on a mean area planted of 600,000 ha and a mean yield of 0.4 MT per ha. MARNDR estimates maize grain production for 2012 at 202,000 MT.¹²⁴ Drought and hurricane damage strongly affected the performance of local production during 2012.

Although all regions produce maize, production is concentrated in the southern peninsula and Central Plateau. The map below indicates the relative importance of maize cultivation across the country; darker green areas are those where area planted to maize is highest. Yields vary considerably by region depending on rainfall and input use (fertilizer and improved seeds).¹²⁵ Most

Figure 14. Spatial Distribution of Area Cultivated to Maize, 2012



Source: MARNDR, 2012.

123 IRAM, 2012, *Analyse de la Filière Maïs en Haïti et Appui au Positionnement des Organisation Paysanne*.

124 MARNDR estimated 2011 maize production was 375,000 MT.

125 USAID-BEST, August 2010, Haiti USAID-BEST Market Analysis. Despite some yield gains, fertilizer use is still very low. The country imports around 20,000 MT of fertilizer each year. Southern areas consume around 10 percent of all imported fertilizers.

production is rain-fed while intensive irrigated production generally accounts for less than 10 percent of supply.

Planting usually occurs between February and April, and farmers harvest in June/July. The length of the cropping cycle varies between three and five months depending on variety and region. A second batch is planted in July/August and harvested in October and November. Between February and May inclusively, maize supply is more limited and prices increase sharply. Farmers usually market maize as grain, and traders mill the grain prior to sale. The milling rate is approximately 60 percent for meal, 20 percent for flour, and 20 percent for bran.

Maize meal and maize flour are the main imported products.¹²⁶ Volumes of imported grain are less significant than meal and flour. Between 2000 and 2009, the country imported on average 331 MT of maize grain. Grain imports have increased in 2012 to 4,375 MT as a consequence of LMH imports for milling and Haiti Broiler's new animal feed operations.

Table 17. Imports of Maize Grain, Meal and Flour in Haiti (MT), 2001-2011

Year	Maize grain	Maize meal and flour
2001	76	2592
2002	225	4066
2003	40	1776
2004	35	1380
2005	148	2956
2006	15	1550
2007	249	4807
2008	46	17377
2009	231	25850
2010	2031	33740
2011	92	16184
Average	463	9442

Source: AGD.

Note: Average distorted because of 2010 earthquake relief numbers.

True levels of maize meal and flour imports for 2012 are difficult to ascertain because informal imports from the DR seem to have greatly increased, and these numbers are usually largely under reported. According to official customs figures, the US is the main source of imports (4,000 MT), followed by Brazil (3,200 MT) and the DR (1,320 MT). However, there have been discrepancies in the past between official Haitian import data for maize products and official DR export figures. Haiti has become a major export market for MercaSid, one of the largest food conglomerates in the DR. Their brand was found on sale at most of the markets visited during the study and was the cheapest of all imported maize meals, with a price as low as US\$870 per MT at the semi-wholesale level. Official Dominican

126 USAID-BEST, August 2010, Haiti USAID-BEST Market Analysis.

figures for 2012 were not yet available at the time of writing but, based on previous years' export data and the low level of Haitian maize production in 2012, the DR's maize exports were greater than the reported 5,000 MT during that year. These numbers bring total imports to around 20,000 MT for 2012, which is less than 15 percent of total consumption of maize products.

Haiti also exports maize grain to the DR through informal channels. Low prices at harvest time regularly draw Dominican buyers to major maize producing areas. In 2009, exports from the lower Central Plateau alone amounted to an estimated 8,000 MT.¹²⁷ High prices of local maize in 2012 may have limited Dominican purchases. A significant portion of exported maize is reported to be milled in the DR for re-export to Haiti.

4.4.2 Market Structure

Local maize. More than 600,000 producers are part of the maize value chain. Generally, after harvest, producers dry and de-hull the grain before selling to rural *Madam Saras* at the farm gate. Some farmers sell directly in local markets. The primary maize production zone is the Cayes plain, which supplies markets in Les Cayes, Fonds-des-Nègres, and Port-au-Prince. South and Southeastern Departments produce for Jacmel and Port-au-Prince. The Central Plateau produces for Cap-Haitien, Ouanaminthe, and Port-au-Prince. The Northwest regions supplies to Northwest Department markets: Gonaïves and Port de Paix.¹²⁸

Table 18. Local Production and External Trade Estimates for Maize (MT), 2012

Product	Local production	Imports	Exports
Maize grain	202,000	4,375	2-3,000
Maize meal and flour	130,000	20,000	-

Source: Ministry of Agriculture, AGD, estimates of informal border trade.

Rural *Madam Saras* sell maize in whole form to urban *Madam Saras*, who mill it for a defined fee per marmite (unit of measure of volume) in hundreds of small private installations located around rural markets. They then sell it to retailers in urban centers or larger rural markets. Urban *Madam Saras* also perform wholesale services. For local maize meal, a limited number of cooperatives and small businesses package products and sell directly to supermarkets in main cities. Some cooperatives in the northern part of the country have also been providing food aid programs with maize meal as described in the chapter on local and regional procurement in this study.

Imported maize. Imported maize shares the same marketing channel as imported rice. In general, large rice importers tend

127 Duret, Paul, 2010, *Etude sur le Potentiel de la Production de la Region Frontaliere Belladere*.

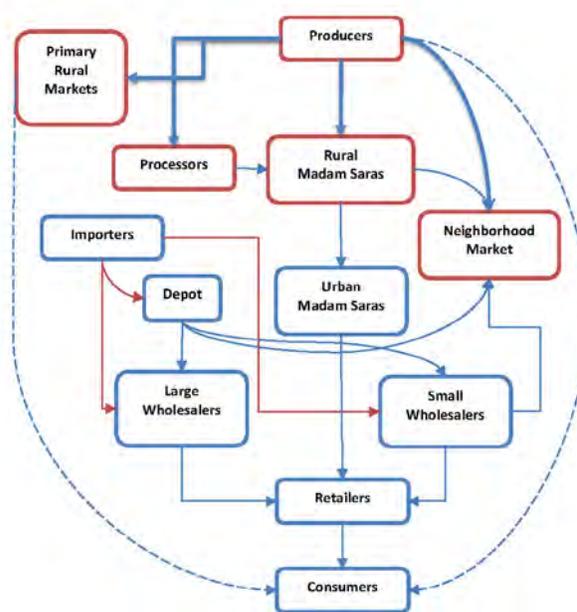
128 USAID-BEST, August 2010, Haiti USAID-BEST Market Analysis.

to also import maize, but in much smaller volumes.¹²⁹ Maize meal and flour are purchased from wholesalers in 50 lb. or 25 kg. bags (depending on the brand) by "depot" owners (larger traders with permanent storage space) in cities or large rural markets. Depot owners' purchases may be on the order of tens or hundreds of bags which are resold to retailers. Short-term credit is available to all categories of traders. LMH plans to operate in 2013 mainly with imported maize due to the high price of local products. The mill has a network of 20 wholesalers across the country who sell maize meal and flour in addition to wheat flour. A large number of informal traders command a substantial portion of imports. They obtain their supply mainly on the large border markets for resale to depots or retailers.

4.4.3 Market Conduct

Local maize. Thousands of marketing agents who have limited resources and investments characterize the domestic value chain. The multitude of players suggests a competitive market with no barriers to entry and exit. Additionally, at the wholesale level, no company is able to sell large quantities that would affect market prices. Local prices often depend on in-country production levels. Wholesalers and retailers set prices based on what other sellers mark down, or some general knowledge of market prices. Also, companies are not able to gain large margins.¹³⁰

Figure 15. Maize Marketing Channel



Source: Created by USAID-BEST.

Imported maize. For maize grain, two importers (LMH and Haiti Broilers) accounted for 50 percent and 45 percent of market share, respectively, in 2012. For maize meal, one company (STANCO) imported 4,000 MT or 45 percent of

129 USAID-BEST, 2010, Haiti Market Analysis.

130 USAID-BEST, August 2010, Haiti USAID-BEST Market Analysis.

official imports for processing into snack foods. Two other companies share 10-15 percent each of the formal market for maize meal. Hundreds of small traders informally import maize meal and flour from the DR. Formal sector imports of maize flour in 2012 amounted to 57 MT. ACDI/VOCA's imports of Corn Soy Blend in 2012 (530 MT) are wrongly listed as maize flour in AGD data. Food aid only accounted for 9 percent of formal maize meal imports (WFP was the main importer at 292 MT) in 2012 as supplies for earthquake relief diminished.

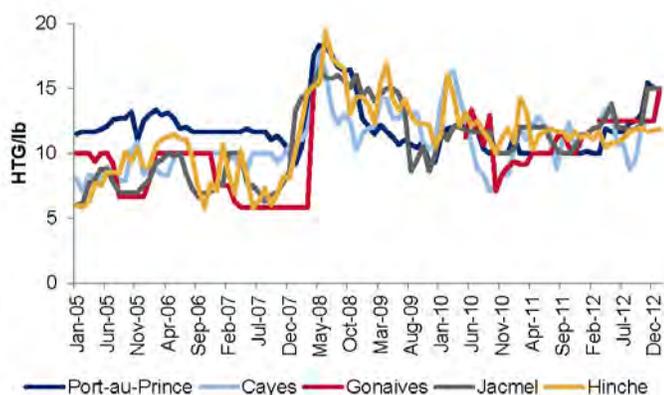
4.4.4 Market Performance

Local maize. Local maize grain and meal prices follow production seasonality and are generally higher during the February-May period. However, local milled maize prices are not perfectly transmitted across regional markets. Many factors such as volume produced, seasonality, and transport costs affect prices across regions.¹³¹

Poor harvests of both maize and sorghum in 2012 because of climatic conditions resulted in high prices for maize grain and milled products during the second half of the year. Retail prices were generally in the US\$700-750 per MT range for maize meal at the beginning of 2013, and are likely to continue rising in the first five months of 2013.

Imported maize. Imported maize meal prices are generally higher than prices of local meal (see figure below). In January 2013, prices of imported maize meal at retail level were 10-50 percent higher than that of local meal, depending on the brand. Market location and transport costs play an important role in price variations across markets. International price fluctuations have a limited effect on maize prices on Haitian markets.

Figure 16. Price of Local Corn Meal (HTG per 6 pound marmite) January 2005-December 2012



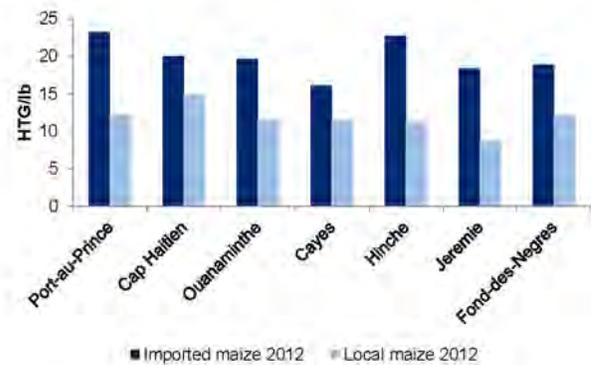
Source: CNSA/FEWS NET.

Similarly, for maize flour,¹³² strong demand for both local and imported types in recent years has pushed prices higher for this product.

131 USAID-BEST, August 2010, Haiti USAID-BEST Market Analysis.

132 USAID-BEST, August 2010, Haiti USAID-BEST Market Analysis.

Figure 17. Average Annual Price of One Pound of Imported and Local Ground Maize Prices (HTG), by Market, 2012



Source: Created by USAID-BEST, using data from FEWS NET and CNSA.

Note: CNSA numbers are for the most expensive imported brands and can be misleading.

4.4.5 Implications for Title II Programming

Maize meal and flour could be included in a voucher program. They are a cheaper source of calories than rice, the maize market is transparent, and there is satisfactory availability in most regions for more than eight months of the year. Imported maize products are generally more expensive than local. Therefore, if targeting is properly done, low-income beneficiaries will probably choose local maize over imported to maximize calorie consumption. This action may increase prices for local grain, meal, and flour and provide incentives for increased production.

Price incentives though are a necessary but not a sufficient factor for increasing maize production. Specific agricultural research and extension programs would have to target maize production in the humid mountains and irrigated plains and address the need for varieties better adapted to the changing climatic conditions, improved fertilizer use and storage. Voucher use must also be properly timed. During the lean season, increased demand for local maize could significantly affect price levels and negatively impact non-beneficiaries who rely mainly on the market for their supply of cereals during the months of February to June.

4.5. WHEAT GRAIN AND WHEAT FLOUR

4.5.1 Overview of Demand and Supply

Demand. Haiti does not produce wheat grain but the country consumes substantial amounts of wheat products. Per capita consumption for wheat grain is estimated at 14 kg per year.¹³³ Wheat in Haiti is consumed in the form of porridge and/or cooked either alone or mixed with beans, and is mostly sourced from commercial imports and food aid. The majority of wheat grain imports are Hard Red Winter (HRW) wheat for flour production. Smaller volumes of imported bulgur wheat are used primarily in food aid programs.

133 CNSA, 2012, *Evaluation de la Campagne Agricole de Printemps 2012*.

Wheat-derived products (such as flour and pasta) are sold in all markets across Haiti. They represent a significant part of the Haitian diet. All households, regardless of economic status, consume wheat flour products, mostly in the form of bread. According to some informants, demand for bread has not significantly increased since 2010 because bread prices have risen and consumers are switching from bread to cheaper pasta (spaghetti) for breakfast. There are at least three mills producing spaghetti in the country that import their own wheat for production. In general, demand for wheat-derived products varies according to the season, e.g., bread consumption decreases during mango and bread-fruit harvests from May through July.

Up until 2010, demand for wheat flour came regularly from multiple market actors including bakeries, ambulant vendors of cookies and deep-fried products, restaurants, and households. After the earthquake, damage to physical structures (including the country's sole wheat flour mill and many bakeries), and loss of livelihoods contributed to decreasing demand for wheat flour products.¹³⁴ Current industry sources indicate that demand has recently increased but has not returned to pre-earthquake levels.

Supply. Total hard wheat imports reached 288,407 MT in 2009, but the 2010 earthquake damaged the major mill in the country, LMH, and caused import volumes to decline significantly to 401 MT in 2010.¹³⁵ Since 2011, demand for wheat has rebounded and imports have picked up to 204,052 MT in 2012 (see Table 19). However, total tonnage available in the country is not accurately known because of deficiencies in official records.

Table 19. Hard Wheat Grain and Wheat Flour Availability (MT) in Haiti, 2009-12

Year	Wheat grain	Wheat flour	Wheat flour	Wheat flour
	Imports	Imports	Production	Total
2009	288,407	21,455	180,000	201,455
2010	401	151,686	0	151,686
2011	16,033	152,839	12,355	165,194
2012	204,052	49,171	144,395	193,566

Source: AGD; CEI-RD.

Prior to the 2010 earthquake, LMH processed about 80 percent of the wheat in the country. The mill resumed its activities in November 2011 with a processing capacity of 1,200 MT of grain per day. In 2012, LMH processed approximately 89 percent of all HRW wheat available in the country. Another wheat flour mill, *Les Céréales d'Haiti* (LCH), opened in October 2012 with a capacity of 280 MT of grain per day.¹³⁶

134 USAID-BEST, December 2011, Haiti USAID-BEST Analysis.

135 E-mail correspondence with AGD, January 2013. Key informant, Port-au-Prince, January 2013.

136 Key informant, Port-au-Prince, January 2013.

Most wheat grain available in Haiti comes from the US (see Table 20) because of quality, proximity, and price, but a small quantity from various other countries occasionally enters the country. In 2012, 91 percent of total wheat imports came from the US, about 8 percent from Mexico, and 1 percent from other countries (Canada, Colombia, Egypt, Italy, Peru, etc.).

Table 20. Source of Wheat Grain and Wheat Flour Imports (%), 2009-12

	Wheat			
	2009	2010	2011	2012
US	61	99.94	99.99	91
Mexico	0	---	---	8
Argentina	20	---	---	---
Canada	11	0.003	0.0	---
France	8	0.04	0.0	---
Other countries	----	0.017	---	1
	Wheat flour			
US	7	27	6	5
DR	52	49	70	65
France	0	3	0	0.22
Turkey	1	13	9	12
Argentina	0	---	11	4
Netherlands	35	---	---	5
Other countries	5	8	4	8.78

Source: AGD, CEI-RD.

In 2009, LMH bought 52 percent of its wheat grain from the US and 48 percent from other countries (Canada, France and Argentina).¹³⁷ In 2012, LMH bought all its wheat grain from the US because of the relatively lower price of US wheat. LCH also sourced its wheat grain from the US. M&R Lumber S.A. is the only importer to purchase wheat in Mexico. LMH mentioned eastern Europe as another potential source for HRW wheat, but this source has lately experienced a bad harvest so prices are relatively higher.¹³⁸

According to official data, wheat flour available in the country was estimated at around 201,455 MT in 2009, with domestic flour production accounting for nearly 90 percent of that amount. Since the 2010 earthquake damaged LMH, domestic flour production halted for almost two years. In 2010 and 2011, commercial imports and food aid surpassed domestic production in the supply of wheat flour as estimated imports reached 151,686 MT and 152,839 MT, respectively. Following the re-opening of LMH, however, wheat flour imports declined to 49,171 MT in 2012. Total flour available in the country in 2012 was estimated at 193,766 MT, approximately 75 percent of which came from domestic flour production. Total tonnage of wheat flour available in the country may not be known accurately because of poor official records and significant

137 Key informant, Port-au-Prince, January 2013.

138 Key informant, Port-au-Prince, January 2013.

informal trade at the border.

Wheat flour imported in Haiti comes primarily from the DR. After the disruption of domestic production because of the earthquake, US Wheat Associates offered trade and technical support to four mills in the DR to expand their production in response to demand in Haiti.¹³⁹ The Dominican government reportedly subsidizes flour for exports to Haiti. One DR brand of fortified wheat flour, *D' Ravinni*, that USAID-BEST saw during the January field visit was marked "for exports only." According to official Dominican figures, wheat flour exports to Haiti



Photo by Fintrac Inc.

A Dominican brand of fortified wheat flour, *D' Ravinni*, on the market. Ouanaminthe, Haiti, January 2013.

averaged 73,663 MT in 2010 and 107,521 MT in 2011, representing 49 percent and 70 percent of the Haiti's total flour imports, respectively. Official data from the DR are not available for 2012. Haiti customs data show that flour imports declined to 49,171 MT in 2012, with 65 percent (32,035 MT) sourced from the DR (though potentially a greater share if taking into account informal imports). Other sources of formal imports in 2012 include Turkey (12 percent), US (5 percent), Netherlands (5 percent), and Argentina (4 percent).

4.5.2 Market Structure

There are more than 20 companies that import hard wheat grain, wheat flour into Haiti. Wheat grain enters the country through public and private ports in the metropolitan area, as well as in provincial ports. Warehouses in Port-au-Prince, Cap-Haitien, and other regions distribute wheat and wheat flour in cities throughout the country. Recent improvements in major national roads facilitate the distribution of the commodities between cities; however, access to remote locations in rural areas remains a problem, especially during raining seasons.

Official data from customs show that LMH is the major player in hard wheat grain availability in Haiti in 2012 (89 percent), followed by M&R Lumber S.A. (9 percent) and LCH (2 percent).

M&R Lumber S.A. began importing wheat only in June 2012 to produce pasta and LCH shortly after in October. Demand for wheat grain is expected to increase in 2013 because of the one additional mill in the country. With two mills operating at 70 percent of their capacity, demand for hard wheat grain is expected to reach about 250,000 MT per year in the next few years.

Imported flour competes with domestically produced flour. Imported and domestically produced wheat flour is sold in bags of 50 kg and 25 kg. One imported brand is sold in bags containing five small bags of 20 pounds each. Some traders have indicated that small-size bags sell quicker.

While one importer (Antonio Handal et Co) controls 42 percent of flour imports based on official data, LMH dominates

WHEAT MILLING INDUSTRY CHARACTERISTICS

LMH resumed production in December 2011 after almost two years of inactivity because of earthquake damage. Investments for rebuilding the mill are estimated at US\$53 million. Currently, LMH has the following characteristics:

- Two new plants with improved equipment can each process 600 MT of wheat grain per day;
- New anti-seismic buildings and storage facilities;
- Repaired port facilities;
- Capacity currently used: 70 percent (840 MT of grain per day);
- Current flour yield: 78 percent (655 MT per day at current capacity used);
- Tonnage of wheat imported in 2012: 189,019 MT;
- Flour production in 2012 is estimated at 141,195 MT;
- At its current processing capacity, LMH production is estimated at 196,560 MT per year, but when full capacity is reached production level can be more than 280,000 MT per year.

LMH faces competition from wheat flour imports and a new mill established in the Carrefour area (LCH). LCH has the following characteristics:

- Began operations in October 2012;
- Operated by Khawly Group;
- Private investments of US\$10 million;
- Capacity to process 280 MT of wheat per day;
- Wheat imports in 2012: 4,533 MT;
- Production in 2012 is not known, but can be estimated at about 3,400 MT (from October to December).

¹³⁹ US Wheat Associates, 2011, US Wheat Associates Annual Report 2010-11.

the flour market with 73 percent of the total availability. LMH has a network of 20 wholesalers for in-country distribution. During the January 2013 field visit, flour from LMH was particularly rare in the North and Northeast Department. The markets in these regions predominantly receive flour from the DR. Trade at the border has become an important activity for many Haitians. During the last five to ten years, the number of traders crossing the border on free market days¹⁴⁰ in Ouanaminthe is estimated at about 18,000 people.¹⁴¹

Various traders import flour in the North and Northeast Departments. Dominicans are heavily involved in the flour market in these two departments. Three Haitian importers installed in Ouanaminthe purchase at least 400 MT of wheat flour per week. Dominican wholesalers open stores (depots) at this border market to sell wheat flour imported from the DR. Trade in wheat flour also occurs in Cap-Haitien. Here, there are two large Haitian importers, but ambulant Dominican traders also bring their product to the markets for sale to wholesalers and retailers. For wheat flour markets in Ouanaminthe and Cap-Haitien, groups of small traders organize together to collectively buy wheat flour in 15-50 bags of 25 kg each on free market days. They sell the product to wholesalers, bakeries, and retailers. There are also a large number of small traders who visit the markets to purchase only one or two bags of flour for re-sale.

Haitian wholesalers and small traders come from different regions of the country to buy flour from Haitian importers, Dominican merchants and *Madam Saras* (Haitian trader groups) in the Northeast.

Numerous primary wholesalers are located mainly in Port-au-Prince, although some do business in Cap-Haitien as well. Secondary wholesalers are located in large cities throughout the country. When accounting for petty trade, the number of wheat flour retailers is hard to quantify. Unemployed young women are among the main wheat flour petty traders. The chart below illustrates the marketing channel for wheat flour.

4.5.3 Market Conduct

There are no legal barriers to market entrance at any level for those with access to capital. The presence of Dominicans selling commodities directly in Haitian markets in Ouanaminthe and Cap-Haitien indicates free entry. However, there is a 3.5 percent tariff on wheat flour and 4 percent on bulgur and hard wheat. Additional custom fees bring total taxes to 19 percent for each product.

Currently, LMH is the major hard wheat grain importer and the largest flour producer. The importance of the new flour mill, LCH, was negligible in 2012 as it only started operations at the end of October 2012, but its importance is likely to increase in the near future. Other than bulgur wheat, international donors



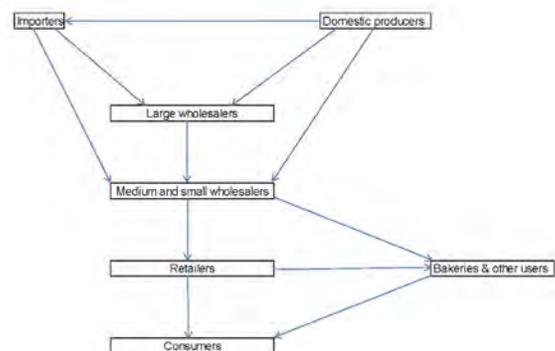
Photo by Fintrac Inc.

LMH closed its mill following damage from the January 2010 earthquake but resumed operations in late 2011. Some of the equipment in their newly renovated mills is shown here. Port Lafiteau, Haiti, January 2013.

did not have a significant presence in the wheat and flour market in 2012. Officially, there are more than 20 wheat flour importers in the country. Though the importer Antonio Handal et Co dominated the wheat flour trade in 2012, a large number of traders purchase their stocks at the border during free market days.

The market for wheat flour is highly competitive at the wholesale and retail levels. Importers and large wholesalers deliver the commodities directly to clients in the most accessible markets. In Croix-des-Bossales, for example, importers bring their loaded trucks to the market and sell bulgur and wheat grain to wholesalers. The same strategy is observed throughout the country for wheat flour. This method not only increases the volume of flour sold by wholesalers in a

Figure 18. Market Flow Map for Wheat Flour



Source: Created by USAID-BEST.

given market, but also reduces their transport costs and risk of losing money.

¹⁴⁰ A day agreed upon between countries where traders can exchange goods at the border without paying a customs fee.

¹⁴¹ Fritz, Jean/HIFIVE, 2012, Utilisation des Produits Agricoles dans les Restaurants et Hotels dans le Couloir Marien.

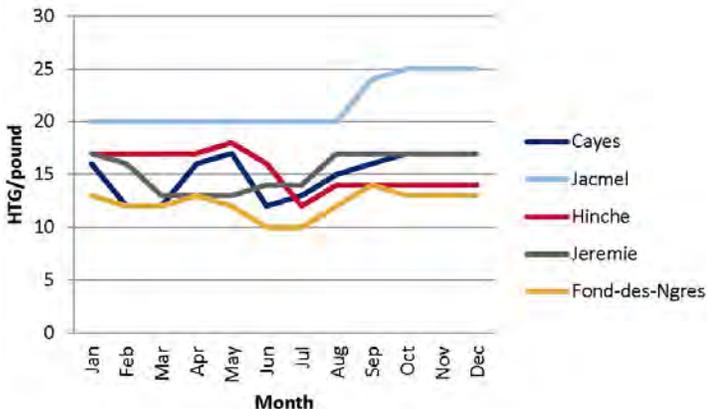
4.5.4 Market Performance

Extensive production of wheat flour by LMH and the new LCH mill in addition to imports ensures an adequate supply of wheat flour on the market. This availability suggests the market is operating efficiently.

Wheat grain and wheat flour are sold in all markets by number of bags at the wholesale level. Prices are discriminated based upon the number of bags that one trader can purchase. Retailers buy in small amounts (one or two bags) to sell by cup of one pound or by tin of six pounds. USAID-BEST found wheat flour for sale in all markets, and wholesale price tends to be similar in ports of entry.

Imported flour is sold at the same price as LMH in every market. In South Department, a 50 kg-bag of flour from LMH, LCH and millers from the DR is priced at the same level, about 1,650 HTG. This price may reflect subsidies to flour producers in exporting countries. At the retail level, flour prices vary from one market to another and from one period to another. The following figures present the variation of retail wheat flour prices on select markets in the southern and northern regions. The first figure details flour prices in 2012 in the southern markets and shows that prices in Jacmel stayed relatively stable compared to the other markets in the region. As for the

Figure 19. Average Monthly Price of Wheat Flour on Select Markets in the South and Central Departments, 2012



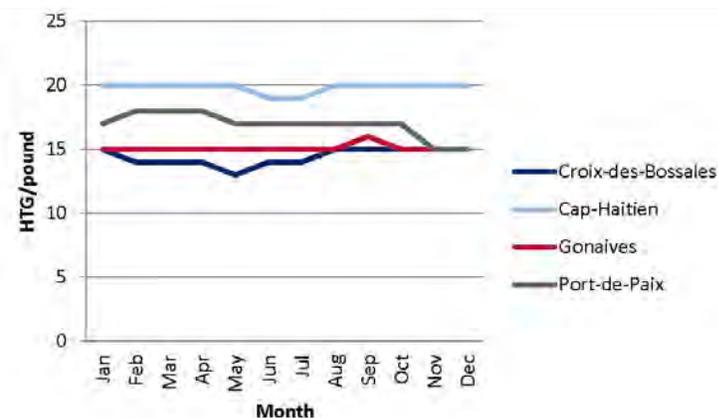
Source: CNSA.

northern markets, depicted in Figure 20, almost all markets in the area exhibited a consistent stability in 2012.

Sale transactions usually occur on a cash basis. Interviews with different actors throughout the country indicate that credit is provided all along the distribution channel. All categories of clients (wholesalers, retailers, and consumers) receive credit for commodities purchased. However, sellers select the most reliable clients when extending credit. The credit period lasts about 8 to 15 days for all creditors.

Traders also receive credit from microfinance institutions and

Figure 20. Average Monthly Price of Wheat Flour on Selected Markets in the North, Artibonite, and West Departments, 2012



Source: CNSA.

commercial banks. One microfinance institution offers credit to *Madam Saras* and wholesalers for a 10 month-period at a monthly rate of two percent. Some traders acknowledge their difficulties to reimburse the debt after losses of merchandise due to theft or fire.

Wheat flour prices tend to decrease in late April through June because of less demand during the mango and breadfruit harvest. (See textbox for further details.)

SUBSTITUTE FOODS

Mango is the principal fruit grown in Haiti. In 2011, mango production reached about 508,939 MT and 3 percent of this total was exported. Locally produced mango is the main fresh fruit consumed from late April to late June. While high- and medium-income individuals consume mango for its taste and as a food supplement, low-income families usually eat the fruit as a regular meal during harvest periods. Because of its relatively low price and nutritional value, low-income individuals in urban areas reduce their consumption of other commodities, such as wheat flour derived-products, in favor of mango. In rural areas, neighbors mainly share mangos. Similarly, during harvests, low-income families living in rural and urban areas often substitute expensive food for cheaper breadfruit that is abundantly available in this time.

4.5.5 Implications for Title II Programming

A voucher system can be tied to domestically produced wheat flour with little effect on market price and availability. Despite competition from imports, production is expected to increase in the near term and both LMH and LCH have sufficient capacities to process flour in the country and move commodities around. Demand for flour will lead to increased demand for wheat grain, which may translate into potential for wheat monetization in

the future. LMH already has experience buying USG monetized wheat, mostly under the Title II program over the past decade, prior to the 2010 earthquake. The company has indicated that past wheat monetization programs were successfully completed.

Haiti does not grow wheat domestically, and most wheat grain used in Haiti is sourced from the US, therefore, as long as wheat is sold at a fair market price, there is no reason to believe monetization of wheat would distort the market. Achieving a fair market price has been somewhat problematic in the past, when there was only a single buyer. If monetization sales target both mills, rather than just LMH, there will be a greater likelihood of achieving a fair market price.

However, if beneficiaries use vouchers to buy wheat flour products, e.g., bread and/or other baked goods that are not fortified, this would be less desirable than other more nutritious options. For example, there are locally produced crops such as tubers (yams, cassava, and sweet potatoes) that can be directly consumed or also processed into flour. A product like cassava can be fortified to improve its nutritious characteristics. Title II partners should explore the possibility of including locally-grown tubers into the voucher system to stimulate in-country production.

4.5.6 Bulgur Wheat

Demand. Bulgur wheat is consumed in all regions in Haiti, though the volumes offered in the markets are relatively small compared to other cereals such as rice and maize. The Lebanese who settled in Haiti in the 19th century originally imported bulgur. Until more recently, bulgur consumption was primarily a northern habit. With the introduction of bulgur in food aid rations in the 1970s, bulgur consumption became increasingly common throughout the country.

When available, most consumers eat bulgur once a week to diversify their diet, but it is not a strongly preferred food. Bulgur wheat is consumed as porridge and/or cooked with beans and other side dishes. Low- and medium-income households consume bulgur wheat for all types of meals (breakfast, lunch and dinner). School feeding programs often offer bulgur for lunch to children.

Food aid imports constitute the bulk of bulgur available in Haiti (about 90 percent), while commercial imports make up about 10 percent of total supply. Among commercial imports, *Alberto* from Miami, Florida, and *Bunge* from Saint Louis, Missouri are two brands observed in the market. According to informants, consumers prefer *Alberto* to *Bunge*.

Supply. Bulgur wheat is imported primarily for food aid programs, with minimal commercial imports. Bulgur wheat available in the country was estimated at 11,140 MT in 2009. The volume significantly increased to reach 33,288 MT in 2010 as humanitarian aid poured into Haiti following the earthquake. Availability declined in 2011 to reach 11,553 MT, almost all of

HISTORY OF BULGUR WHEAT IN HAITI

Though it has a long tradition in the Haitian diet tracing back to Lebanese settlers, the notable supply of bulgur wheat in Haiti has mainly come from food aid. When bulgur was distributed in the 1970s through food-for-work (FFW) programs, beneficiaries sold the amount received in the market because of their preference for local goods. Those involved in FFW were also producers who consumed primarily what they grew. They required cash to buy necessary non-food items so Madam Saras who purchased the bulgur in areas of distribution sold it to consumers in urban markets. The urban buyers would likely have been people who originated in the north of the country, and who had grown up eating bulgur as a regular part of their diet. Bulgur wheat consumption progressively found a place in the typical Haitian diet. Today, bulgur is sold almost everywhere including local supermarkets, urban and rural markets, but availability depends largely on food aid distribution.

which was imported as food aid.¹⁴² According to official data, bulgur available in Haiti was estimated at only 4,562 MT in 2012. Current Title II partners (ACDI/VOCA, Catholic Relief Services (CRS), and World Vision (WV)), local supermarkets, and food distributors import bulgur wheat. According to these official figures, average food aid represented about 99 percent of bulgur imports between 2009-12.¹⁴³ For 2012 specifically, food aid represented about 97 percent of bulgur imports, for use in food for work activities or in direct distribution to beneficiaries in health centers and schools. However, total tonnage of bulgur available in the country is not accurately known because official records provide an underestimate of total imports. Since food aid is exempt from import taxes, the main reporting deficiencies come from commercial imports. Anecdotal evidence suggests the bulk of commercial imports of bulgur enter unrecorded through Cap Haitian and Port-de-Paix.¹⁴⁴ Imports from current Title II partners are shown in Table 21:

Table 21. Title II Imports of Bulgur (MT), 2009-12

Organization	2009	2010	2011	2012	Total
ACDI-VOCA	1,243	3,563	1,270	1,389	7,456
CRS	4,535	9,354	4,436	410	18,735
WVI	4,474	20,318	5,828	2,642	33,262
CARE	528	0	0	0	528
Total	10,780	33,235	11,534	4,441	59,990

Source: AGD.

Note: AGD statistics differ from totals reported by USAID and MYAP partners, but both report significant decreases in imported soy-fortified bulgur as food aid from 2010-13. The small differences between AGD figures and USAID/MYAP partners' data may be due to differences in reporting years; AGD data are also based on a calendar year while USAID/MYAP data are based on USG fiscal year.

¹⁴² E-mail correspondence with AGD, January 2013. Key informant, Port-au-Prince, January 2013.

¹⁴³ Key informant, Port-au-Prince, January 2013.

¹⁴⁴ In Port-de-Paix, for instance, some traders state that significant quantities of bulgur wheat coming from Miami through the port are not officially declared.

Over the last four years, according to AGD statistics, WV, which operates in the Central Plateau and La Gônave, imported the largest amount of bulgur in the country at a total of 33,262 MT, followed by CRS (18,735 MT) and ACDI/VOCA (7,456 MT). In 2012, the volume of bulgur distributed by the three current Title II partners decreased along with an overall decrease in distributed food aid tonnages.

Market Structure. The three current Title II awardees import the bulk of bulgur wheat. Among commercial importers, there are 15 enterprises, including supermarkets and other food distributors, that import small quantities of bulgur into Haiti. In Croix-des-Bossales, *Madam Saras* sell bulgur that they have purchased in Central Plateau where food aid is generally distributed. Reportedly, food-for-work beneficiaries will sell bulgur to *Madam Saras* and some will negotiate prices even before they receive their rations. *Madam Saras* purchase bulgur by tin and re-sell by tin. One trader in Hinche indicated that food aid distributions affect the bulgur market. Traders also receive bulgur from importers and wholesalers, and they usually purchase it by bags of 50 pounds and re-sell by bag and/or tin.

Market Conduct. The market for bulgur is highly competitive, similar to wheat flour, at the wholesale and retail levels. Importers and large wholesalers deliver the commodities directly to clients in the most accessible markets. In Croix-des-Bossales, for example, importers bring their loaded trucks to the market and sell bulgur and wheat grain to wholesalers. This method not only increases the volumes they sell but also reduces their transport costs and risk of losing money.

Market Performance. During field visits, bulgur wheat was priced at 1,050 HTG per 50 lb bag in Croix-des-Bossales and in Port de Paix. Bulgur coming from Miami, Florida enters in Port au Prince and in Port de Paix. The fact that prices in Croix-des-Bossales are the same as in Port de Paix indicates that importers face the same transaction costs.

At the retail level, bulgur prices generally vary by location and season. Data collected during the USAID-BEST field visit show that bulgur prices were about 27 HTG per lb in all markets in Artibonite, Northwest, North, and West Departments; the observed prices were about 50 HTG per kg in the Central Plateau and South (Camp-Perrin) Department where food aid is mainly distributed. Data on nominal prices from CNSA are reported in the two figures below for southern and northern markets. Looking first at the southern region in Figure 21, the price of bulgur in Jacmel was the highest among the other markets in the area. Prices declined during times of food aid distribution from April to June, which shows that food aid beneficiaries do sell on the market a certain quantity of the rations they receive. This phenomenon also occurred in the northern markets (see Figure 22). In this region, bulgur prices tend to be higher in Cap-Haitien.

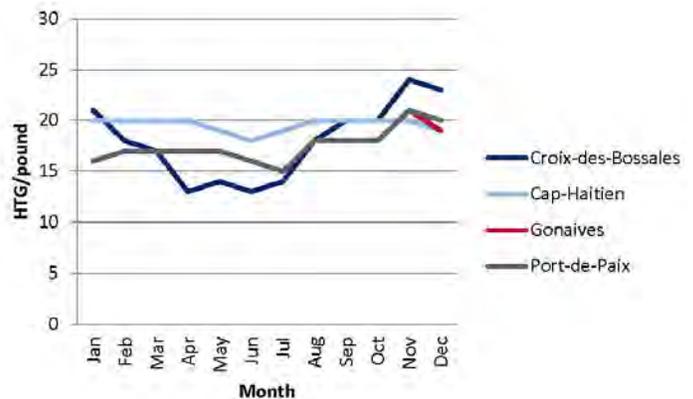
Data from CNSA and direct observations indicate that wheat flour prices are generally lower than those for bulgur wheat (see Figure 23). They appear to be two different products in the

Figure 21. Average Monthly Price of Bulgur in Select Markets in the South and Central Plateau, 2012



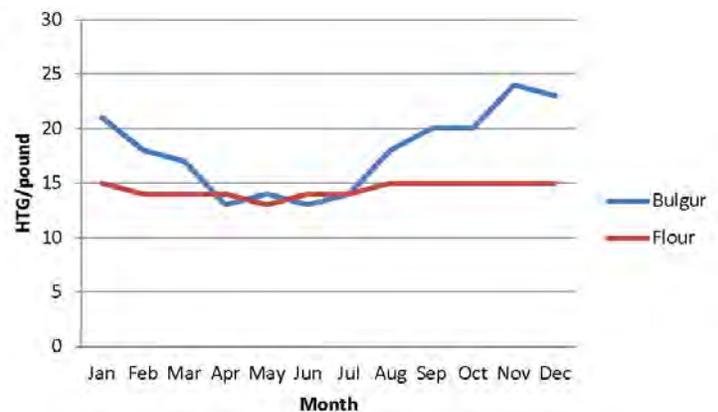
Source: Created by USAID-BEST, using data from CNSA.

Figure 22. Average Monthly Price of Bulgur in Select Markets in the North, Artibonite and West, 2012



Source: Created by USAID-BEST, using data from CNSA.

Figure 23. Bulgur Wheat and Wheat Flour Prices in Croix-des-Bossales, 2012



Source: Created by USAID-BEST, using data from CNSA.

market with no strong correlation. In 2012, the retail price of bulgur was equal or lower to flour only between April and July during mango production and the time of food aid distributions in the Central Plateau.

Implications for Title II Programming. Distribution of bulgur wheat, including Soy-Fortified Bulgur (SFB), has likely improved the overall food security of beneficiaries. However, based on the availability of bulgur wheat in the market, it is clear that not all beneficiaries consume all the ration they receive. There is strong evidence that beneficiaries, especially food for work beneficiaries, regularly self-monetize a substantial volume of bulgur wheat. Food aid that is not valued by the beneficiaries as food, but is instead self-monetized to purchase other goods suggests there is a problem with either the design or the implementation of the activity, or both. Self-monetization of this cereal on the market may negatively affect the prices of substitute cereals.

USAID should work with PVOs on the design and implementation of activities that include bulgur in the ration, and consider substantially reducing the use of bulgur wheat for direct distribution in development programs because of the market impact. While this waste has been reduced since the decline in bulgur wheat used for direct distribution by Title II MYAP partners since 2010, bulgur should be minimized or avoided for the next four-year Title II development cycle. The shift to food vouchers and a preventive Maternal Child Health and Nutrition program, neither of which would be expected to involve import of bulgur wheat food aid for the direct beneficiaries, should reduce this problem.

4.6. EDIBLE OILS

4.6.1 Overview of Demand and Supply

Demand. Haiti is the largest consumer of edible oil in the Caribbean and Central America.¹⁴⁵ Edible oil consumption in Haiti is currently estimated at 10 liters (9.2 kg) per capita per year. This level, according to a key informant, has remained stable in the last three years despite the devastation to livelihoods following the earthquake. Oils and fats contribute about 18 percent to the total daily caloric intake.¹⁴⁶ Main dishes in the Haitian cuisine include sauce and grains prepared with oils, and fried or deep-fried foods. Frying and/or deep frying prevents food exposure to bacteria and toxins, which is particularly important considering that for most people refrigeration is a luxury.

Vegetable oils from palm, soybean, maize, olive, and sunflower account for most oil consumed in Haiti. These types are sold under different brand names. The most common are: *Mazola*, *Ti-Malice*, *Alberto*, *Gourmet*, and *Rika*.

Although the entire country consumes edible oils, preferences differ between rural and urban areas. In urban centers that sell a large diversity of brands, consumers seem to prefer *Ti-malice* and *Mazola*. In rural areas, consumers tend to purchase whatever is available, and oftentimes in these locations *Mazola* is the only brand for sale. Consumers prefer soybean oil because of perceptions about its relatively higher quality but the relatively lower price of palm oil appears to drive purchases. Palm oil has better qualities when deep frying food, which is a factor consumers likely consider when choosing among types of edible oil for cooking.¹⁴⁷ Commonly, wealthier people purchase small quantities of corn, olive, and other oils. Animal fats are mostly used for animal feeds.

Supply. Most edible oil is brought in the country through formal imports (70 percent), though informal imports account for 20 percent of the remainder and food aid the other 10 percent. While there is some potential for national production of edible oils, especially coconut oil, underinvestment and current consumer habits¹⁴⁸ translate into national production contributing a negligible amount to overall supply. In 2012, imports of edible oil were estimated at about 100,000 MT (comparable to 2010 volumes). Domestic production and processing is almost nonexistent; two companies import different types of oil to blend for sale under their own brands. CARRIBEX combines palm and soybean oil to make the *Ti-Malice* brand as does *Huilérie Haïtiennes, S.A.* (HUHSA, under the Gilbert Bigio Group) to produce *Gourmet*.¹⁴⁹

Palm oil imports and consumption have increased since 2004. In 2012, palm oil accounted for 80 percent of total edible oil consumption. The shift to palm oil consumption is largely



Photo by Fintrac Inc.

Haitians prefer certain brands of oil rather than a specific type. *Ti-Malice*, one of the major brand names, is a blend of palm and soybean oil. Croix-des-Bouquets, Haiti, January 2013.

¹⁴⁵ Key informant, Port-au-Prince, January 2013.

¹⁴⁶ USAID-BEST, August 2010, Haiti USAID-BEST Market Analysis. According to USDA recommendations, oils and fats should contribute between 20 and 30 percent to humans' total caloric intake.

¹⁴⁷ USAID-BEST, December 2011, Haiti USAID-BEST Analysis.

¹⁴⁸ Although there was some coconut oil produced in the 1950s, consumers these days add grated coconut to cooked foods (rice, corn), but not directly in oil form.

¹⁴⁹ Key informant, Port-au-Prince, January 2013.

EDIBLE OIL INDUSTRY TRENDS

In the past, two large importers dominated the imported oil market: Huilérie Nationale, S.A. (HUNASA) and Huilérie Haitiennes, S.A. (HUHSA). HUNASA was processing semi-refined into refined edible oil. HUNASA was owned by the Brandt family (owner of CARRIBEX) and so, through CARRIBEX, HUNASA used to import low-grade palm and soybean oil in bulk. Once the product arrived, CARRIBEX filtered, refined to some degree, bottled, and packaged edible oil for distribution to wholesalers and large retailers. HUHSA was engaged in a similar operation in producing Gourmet. HUNASA recently went completely out of business, but CARRIBEX continues to import refined palm oil and soybean oil, which they blend to produce Ti-Malice.

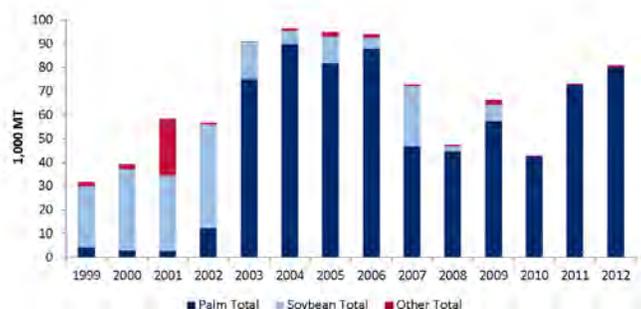
because of higher world prices for soybeans. A key informant indicated that the price differential between palm and soybean oil has been as high as US\$250 per MT in the last six months. In January 2013, the price differential was up to US\$300 per MT.

For the two processors who blend palm and soybean oil to produce *Ti Malice* and *Gourmet*, the proportion of each kind of edible oil used in the blend is determined by the price differential between the two types. As the figure below illustrates, trends in edible oil imports during 1999-2012 reflect a dramatic shift to palm oil over the last decade.

Haiti imports almost all vegetable oil consumed in the country, but some households in the south and north produce and consume limited volumes of locally produced coconut oil, which accounts for a very small percentage of the overall consumption.

As highlighted in the chart below, soybean oil dominated the import market between 1999 and 2002. In 2002, Haiti imported 44,000 MT of soybean oil but only 12,000 MT of palm oil. Starting in 2003, there was a reversal in this trend because of global market prices and palm oil soon dominated the edible oil import market. By 2012, Haiti formally imported 80,000 MT of palm oil, valued at about US\$103 million.

Figure 24. Edible Oil Imports (1,000 MT), 1999 to 2012



Source: Created by USAID-BEST, using AGD data.

Haiti imports edible oil from Malaysia (72 percent), the US (17

percent), the DR (8 percent), and Argentina (2 percent).¹⁵⁰ As highlighted above, low-grade cooking oil (usually palm oil) imports from Malaysia have dominated the Haitian market for the last 10 years. Generally Malaysian oil is first refined in the US and then shipped to Haiti.¹⁵¹

Historically, food aid has accounted for a small portion of the country's total supply (an average of 10 percent). A small volume of sunflower oil (2,000 MT) was monetized in 2004-05,¹⁵² but since then edible oil has not been monetized. Many food aid programs, including the current Title II MYAP, distribute refined vegetable oil in their rations. WFP distributes imported palm oil. In 2013, for example, ACDI/VOCA, CRS, and WV distributed 62 MT, 668 MT, and 370 MT of vegetable oil, respectively.¹⁵³

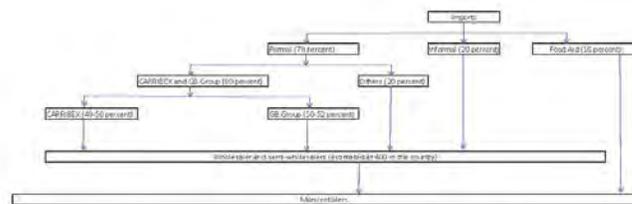
4.6.2 Structure

The distribution structure of the edible oil market is pyramidal. Only two major importers, CARRIBEX and HUHSA dominate as they account for 80 percent of the edible oil imports market. Of that number, CARRIBEX controls around 48-50 percent and HUHSA around 50-52 percent.

These two major importers sell edible oil at the second and third levels to more than 400 wholesalers and semi-wholesalers. CARRIBEX alone has more than 200 regular customers.

The retail level is competitive. There are large numbers of permanent and seasonal retailers peddling small quantities of soybean and palm oil. These seasonal peddlers increase in numbers as employment levels drop.¹⁵⁴ Currently, most retailers purchase pre-packaged brands of different sizes that they resell in one liter containers. The margin from sales at various marketing stages is estimated at 10-15 percent depending on the markets. Some retailers continue to purchase in drums of 50-60 gallons or in plastic gallon bottles and resell in cups, gills, and pints.¹⁵⁵ For these small traders, it is difficult to calculate any margin from sales at different marketing stages. The figure below provides details on the marketing chain.

Figure 25. Edible Oil Supply Chain in Haiti



Source: Created by USAID-BEST based on field interviews.

Note: The percent of edible oil imports that includes food aid will vary from year to year.

¹⁵⁰ Fifteen different countries account for the remaining 1 percent.

¹⁵¹ USAID-BEST, December 2011, Haiti USAID-BEST Analysis.

¹⁵² USAID-BEST, December 2011, Haiti USAID-BEST Analysis.

¹⁵³ Tonnages provided via e-mail correspondence with PVOs.

¹⁵⁴ USAID-BEST, August 2010, Haiti USAID-BEST Market Analysis.

¹⁵⁵ 1 pint=0.5 liter, 1 gill=0.12 liter

Formal edible oil imports arrive mostly via the main Port-au-Prince port, and are then redistributed to other regions and urban centers. Informal imports from the DR are fairly substantial. However, the two major importers who blend the edible oils for their own brands typically formally import refined palm and soybean oils. They then distribute their product to different regions and primarily to wholesalers, secondary wholesalers, and retailers. In general, there is no value added in this process.

4.6.3 Conduct

There are no formal regulations limiting market entry. Anyone can import and sell any type of oil, even cooking oil that has been used and filtered (though this practice is limited to small quantities informally passing through the border with the DR). However, as two main importers control most of the oil market in Haiti, smaller, entry-level actors at the import, and, possibly, wholesale level may struggle to compete.

Because of their volume, the two major importers may influence the price to obtain the largest margin. At wholesale, semi-wholesale, and retail levels, no one actor appears to exert any market power.

The market conduct for small-scale sellers peddling low-priced oil is a leader/follower system in which large-scale sellers set prices, and small-scale suppliers resell whatever they can considering that set price. Retail prices depend on location and transport costs.

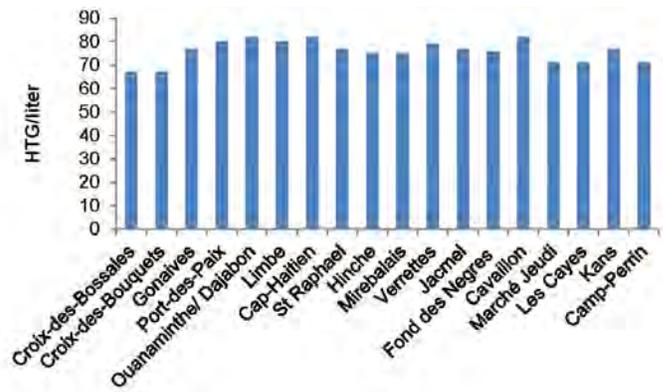
The two main importers organize their own bottling and packaging and then finance transportation and distribution to wholesalers and large retailers. Large wholesalers sell oil to retailers mostly in metal drums or large plastic bottles. During field interviews, wholesalers noted that they offer retailers credit depending on their return history and the size of their businesses. These retailers then repay the wholesaler with proceeds from their sale before purchasing their next quantity of oil. According to USAID-BEST field interviews, large importers also offer credit to their wholesalers. Retailers give credit to consumers as well, but some retailers noted they limit credit to close family members and acquaintances.

4.6.4 Performance

The market appears to function well as the price of edible oil has remained relatively stable in the last 10 months. The following chart shows average prices of edible oil in different markets visited during the USAID-BEST field visit in January 2013.

As noted by one major importer, prices are expected to decrease in April because there is strong supply pressure from Malaysia where producers have stocked about two million MT of palm oil. The price of soybean oil, however, is expected to continue to rise because of increasing demand from the biodiesel industry. Whether these international price changes

Figure 26. Edible Oil Prices (HTG/liter) in Different Markets Visited, January-February 2013



Source: Created by USAID-BEST based on field visit.

will directly influence the domestic market remains unknown.

Currently, supply adequately meets total domestic demand. Only in rural areas, where *Mazola* is the dominant brand, merchants reported they have known periods of shortage. This lack of supply occurred recently when the DR borders were closed because of border tension between the two countries.

According to 2012 customs data, imported edible oil was taxed at 13 percent of its value.¹⁵⁶ The turnover tax¹⁵⁷ at 10 percent depends on the ex-customs composite value of the cargo. Bulk oil is charged US\$6 per MT for ports charges, and packaged oil is charged US\$2.20 per MT. Handling fees usually only apply to packaged oil at a rate of US\$6 per MT.¹⁵⁸

Low and more stable prices in Port-au-Prince compared to the rest of the country characterize annual trends in edible oil prices. For most markets, prices tend to increase in November and December (probably because of increased demand around the Christian holidays) but remain stable for the rest of the year. See Annex 2 for seasonal prices of different edible oil brands consumed in the country.

Losses and spoilage. Oil rarely spoils, but losses and leakages are common. This phenomenon is especially true at the retail level as retailers transfer oil into increasingly smaller containers. The team saw some damaged containers that seeped oil.

¹⁵⁶ USAID-BEST, December 2011, Haiti USAID-BEST Analysis. Imported oils face the following charges: assessment fee (5 percent), local community levy (2 percent), special "accompte" tax (2 percent), and customs duties (16.5 percent).

¹⁵⁷ Tax on the overall volume handled by an individual trader. If a trader handles a greater volume of commodities then it will face a higher corporate tax.

¹⁵⁸ USAID-BEST, December 2011, Haiti USAID-BEST Analysis.

4.6.5 Implications for Title II Programming

Haiti depends on imports to meet nearly its entire demand for edible oil. This means that the benefits of including edible oil in the Title II national food voucher program can “stimulate” the market, but not in the same way that inclusion of locally produced food crops will stimulate the market. The design of the voucher will need to specifically target medium- and small-scale merchants to ensure benefits accrue to these actors rather than solely to the two main importers if the vouchers are going to have a more substantial positive affect on job creation. However, because medium-scale merchants purchase their oil from the two large importers, future awardees will also need to communicate and coordinate with these two importers so that there is an adequate supply of imported edible oil on the market to meet the increased demand resulting from a voucher program.



CHAPTER 5 OVERVIEW OF LOCAL MARKETS

As a result of the city market phenomenon, informal stalls now line streets selling a variety of imported and local goods. Fond-des-Nègres, Haiti, January 2013.

Photo by Fintrac Inc.

5.1. INTRODUCTION

Since January 2010, Haiti has experienced major external market shocks from natural disasters such as the January 2010 earthquake, November 2010 Hurricane Tomas, August 2012 Hurricane Isaac, October 2012 Hurricane Sandy, and from other climatic conditions such as the drought in 2012. These shocks have had varying short- and long-term consequences for the functioning of local markets and, by extension, food security for vulnerable households in Haiti.

This chapter summarizes findings from field visits to regional markets in Haiti and discusses the shared characteristics of these markets that are relevant for food security programming. It also examines the major market players, their behavior, and overall market performance. The chapter concludes by offering some implications for future Title II program design.

5.2. THE CHOICE OF MARKET SITES

The USAID-BEST team selected markets according to their size and the volume of major commodities (such as cereals and pulses) traded. In total, the team visited 24 urban and rural markets across Haiti in surplus and deficit areas (see table below for more detailed information listing market sites visited, the Department, commodities, and market status).

Urban markets are primarily import markets, but do sell some locally produced commodities depending on the production

system in the region. *Rural* markets often specialize in agricultural commodities predominantly grown in their surrounding areas. They are often times assembly markets where urban traders buy large quantities of locally produced commodities that they resell to distant urban markets. These markets are located in small towns and are permanently open but certain days are more active trading days.

Table 22 on the next page charts the markets visited while the figure following it (Figure 27) shows spatially the locations of these markets. Most markets in Haiti are located along the major roads.

5.3. SUMMARY OF KEY FINDINGS FOR ALL MARKETS

5.3.1 Introduction

This section presents a summary of key findings applicable to all markets visited. The information draws from interviews and observations during site visits in January and early February 2013 in addition to available secondary data. The team focused on five commodities: wheat, beans, rice, maize, and vegetable oil.

The following analysis will present the markets by region as they often share specific characteristics and specialize in commodities produced in the area.

Table 22. Markets Visited, January-February 2013

Market Name	Commodities	Department	Setting (Urban / Rural)	Market Status (Surplus / Deficit)	Location (Border / Interior)
Croix-des-Bossales	Rice, beans, maize, sorghum, imported goods	West	Urban	Deficit	Interior
Croix-des-Bouquets	Rice, beans, maize, sorghum, imported goods	West	Urban	Deficit	Interior
Pont-Sondé	Local rice	Artibonite	Rural	Rice Surplus	Interior
Gonaïves	Beans, maize, sorghum , imported goods	Artibonite	Urban	Deficit	Interior
Port-des-Paix	Beans, imported goods	North West		Deficit	Interior
Bassin Bleu	Beans, maize, sorghum	North West	Rural	Deficit	Interior
Ouanaminthe/ Dajabon	Beans, maize, rice and imported goods	North East	Urban	Deficit	Border
Ouanaminthe Town	Beans, maize, rice and imported goods	North East	Urban	Deficit	Border
Limbé	Beans, rice, maize, imported goods	North	Urban/rural	Maize surplus	
Cap-Haitien	Rice, beans, maize, imported goods	North	Urban	Deficit	Interior
St Raphael	Rice, maize, haricot	North	Rural	Rice, maize surplus	Interior
Hinche	Maize, beans, sorghum	Centre	Urban	Sorghum surplus	Interior
Thomassique	Maize, beans, peanuts	Centre	Rural	Maize surplus	Near border
Mirebalais	Maize, rice, beans	Centre	Urban/rural	Maize surplus	Interior
Verrettes	Rice, maize, sorghum, beans	Artibonite	Urban/rural	Rice, maize surplus	Interior
Jacmel	Beans, maize	Southeast	Urban	Deficit	Interior
Fond des Nègres	Beans, maize, sorghum	Nippes	Rural/urban	Beans surplus	Interior
Violet	Tubers, pulses, maize, sorghum	West	Rural	Tuber surplus	Interior
Petite Rivière de Nippes	Maize, sorghum, beans	Nippes	Rural	Maize, sorghum surplus	Interior
Cavaillon	Beans, sorghum, maize	South	Rural	Maize, beans surplus	Interior
Marché Jeudi	Beans, rice, sorghum, peanut	South	Rural	Beans surplus	Interior
Les Cayes	Maize, beans	South	Urban	Deficit	Interior
Kans	Maize, beans	South	Rural	Maize surplus	Interior
Camp-Perrin	Maize, beans	South	Rural	Beans surplus	Interior

Source: Created by USAID-BEST.

Note: Imported goods includes wheat and vegetable oil.

5.3.2 Findings

Greater Port-au-Prince. Here, the two major markets are Croix-des-Bossales and Croix-des-Bouquets. Imported commodities dominate these markets but large quantities of locally produced commodities are traded in these markets as well. There are three levels of traders: 1) large wholesalers (depot owners and *Madam Saras*); 2) semi-wholesalers; and 3) retailers. Local commodity trade occurs primarily using itinerant traders called *Madam Saras*. They engage in spatial arbitrage (earning profit by taking advantage of price differences in different markets), primarily trading along their preferred routes. These medium and large-scale traders tend to follow the

patterns of production seasons and prefer to source from markets to which they have familial ties.

Croix-des-Bossales. Depot owners are predominantly involved in the imports market,¹⁵⁹ but they also purchase locally processed goods directly from producers, e.g., vegetable oil from CARRIBEX and wheat from *Les Moulins de Haiti* (LMH).¹⁶⁰ The proximity of this market to the major national port allows for lower transaction costs because depot owners can directly receive these goods.

¹⁵⁹ USAID-BEST counted more than 80 depots in Croix-des-Bossales during the field visit.

¹⁶⁰ Observation from January 2013 USAID-BEST field visit.

Figure 27. Market Sites Visited, January-February 2013



Source: Created by USAID-BEST, using field visit information.

Madam Saras specialize in trading rice that they source from Pont Sondé and l'Estère in Artibonite Department. *Madam Saras* travel to these rice producing areas twice a week in loosely organized teams, and they often collectively negotiate prices. Sometimes, to lower their transaction costs, they alternate travel times and will purchase rice on behalf of another trader.¹⁶¹

However, wholesalers and semi-wholesalers represent the main suppliers at the Croix-des-Bossales market. Retailers purchase large quantities that they resell in smaller amounts either on numerous smaller markets in and around Port-au-Prince or on the streets. Croix-des-Bossales is known as the market for the cheapest goods in the country.¹⁶²

Credit appears to be available to all levels of traders.¹⁶³ Micro-finance companies, credit unions, importers, and producers lend to wholesalers and semi-wholesalers, who then extend credit to retailers for shorter periods. *Madam Saras* receive credit from micro-finance institutions such as ACME, but they also receive goods on 15 to 22 days credit from their suppliers.¹⁶⁴

Croix-des-Bouquets. Often considered a maize market, *Croix-des-Bouquets* has rapidly expanded over the last five years to become the second most important market in Haiti. Although previously a rural market, the scarcity of local products likely because of natural disasters has led to an increase in imported goods. Maize flour is mostly imported as consumers prefer the quality of imported maize flour from the US and the Dominican Republic (DR) because it cooks faster and thus reduces charcoal

¹⁶¹ Key informant, Port-au-Prince, January 2013.

¹⁶² Key informant, Port-au-Prince, January 2013.

¹⁶³ Interview with traders, Port-au-Prince, January 2013.

¹⁶⁴ *Madame Saras* told USAID-BEST that sometimes it is difficult to buy because small mill owners engage in speculative storage. They buy rice at a slightly high price in September and wait until December and January to resell when prices start to rise.

expenses. Although pinto beans from Miami are also sold, consumers tend to purchase local beans from the surrounding mountains in harvest season during the month of January. Depots owners and *Madam Saras* have the same functions as they do in Croix-des-Bossales.

Artibonite Markets. The three major markets in Artibonite department are Gonaïves, Pont Sondé, and Verrettes. Gonaïves is an urban market that mainly specializes in imported commodities, whereas Pont Sondé and Verrettes are rural markets that primarily sell locally produced goods. The Artibonite valley is the main rice-growing area with a total of 28,000 hectares of land cultivated to rice.

Gonaïves. A smaller import market than Croix-des-Bossales, Gonaïves still has many active depot owners and *Madam Saras*. The market supplies the local population of Gonaïves and the surrounding villages. Traders in Gonaïves typically purchase imported commodities from wholesalers in Port au Prince and these wholesalers directly deliver goods to the market. Some traders travel a long distance to the DR border for commodities such as maize meal, maize flour, and vegetable oil (especially the *Mazola* brand) because of cheaper goods in the border markets.

Pont Sondé. This assembly market specializes in selling and trading locally produced rice. USAID-BEST counted 530 *Madam Saras*¹⁶⁵ who buy paddy rice that they either mill (*sheila*) or they boil and then mill (*shelda*) at neighboring small millers before transporting it to urban centers. This market is particularly active between June and September when rice is harvested in the area.

Verettes. A similar market to Pont Sondé, but besides rice, vendors at this market also sell sorghum and local beans. USAID-BEST found that *cabecit* rice from the DR is prevalent on the market even though Verettes is in a rice producing area. A large number of traders travel to Belladeres at the DR border to purchase this kind of rice in significant volumes, and then they primarily sell to retailers from mountain zones.

Northwestern Markets. In the northwest, USAID-BEST only visited Port-des-Paix. This market is a bit isolated from the rest of the country because of poor road conditions from Gonaïves.

Port-des-Paix. Imported goods arriving from Miami and the DR dominate the commodities market; they include pinto beans, bulgur, rice, maize meal, and maize flour. Some locally processed commodities do arrive from Port-au-Prince; these goods include vegetable oil, rice, maize meal, maize flour, and wheat flour (from LMH). For these commodities, wholesale trade is organized around the representatives from processors in the region to whom regional large traders place their orders for goods that they want to purchase in Port-au-Prince. The representatives who own large depots in Port-de-Paix organize the transportation and delivery of the goods. Credit appears to be

¹⁶⁵ Average number of merchants in the market during harvest season is unknown as *Madam Saras* can even be wives of local producers who buy and process paddy rice in Pont Sondé before selling to urban *Madam Saras*.

available to traders at all levels of the marketing chain.

Bassin Bleu. This market is located in an important production zone for maize, sorghum, and beans. Market participants come from neighboring areas and from Gonaïves and Port-de-Paix to trade commodities. Locally produced rice, maize, and beans are the main commodities found in the market. Nevertheless, imported goods such as rice, wheat flour, maize flour, pinto beans, and vegetable oil are also sold.

Northern Markets. In the northern region, USAID-BEST visited the markets of Cap-Haitien, Limbé, and Saint-Raphael.

Cap Haitien. The market is surrounded by depots supplying imported goods from the US and the DR to small wholesalers and retailers. Rice, wheat flour, maize meal, and vegetable oil are the top commodities traded. Goods from the US arrive at the port in Cap-Haitien while small-scale Haitian traders often go to Ouanaminthe on free market days to buy goods from the DR. Dominican wholesalers also supply commodities by bringing them in containers directly to the Cap-Haitien market.

Madam Saras supply local commodities for this market (rice, corn, beans, tubers, and vegetables) that they purchase in the surrounding region. *Madam Saras* will travel to l'Estère in Lower Artibonite to purchase local rice that they will later sell in the market. Other *Madam Saras* supply beans and maize purchased in producing areas in the North and Northeast.

All markets across Haiti have a significant number of retailers for imported and domestically produced commodities, but this phenomenon is especially noticeable in the Cap-Haitien market. One retailer can sell at the same time several brands and



Photo by Fintrac Inc.

A Madam Sara displays the black beans she has for sale. Locally produced black beans are the most commonly consumed type. Croix-des-Bouquets, Haiti, January 2013.

varieties of a given commodity, but doing so achieves a small marketing margin. They receive credit from wholesalers and micro-finance institutions.

Limbé. Significant amounts of imported and local commodities are offered in this market. Imported goods (rice, bulgur, wheat flour, and maize meal) supplied in large quantities come from the DR and the US. Traders coming from the DR directly sell imported goods to small wholesalers in the market. Local wholesalers also travel to Ouanaminthe in the DR to purchase commodities.

Several regional *Madam Saras* source local rice from l'Estère (Artibonite) for sale on the market. *Madam Saras* from Limbé purchase locally produced goods (beans, maize, tubers and fruits) on this market to resell in Cap-Haitien.

Traders in the market receive short term (eight days) credit from wholesalers. They can also receive longer term credit from microfinance institutions.

St Raphael. This market specializes in locally produced maize and rice. Large quantities of maize grain in St Raphael are sold to traders from Cap Haitien and other surrounding areas. In October during the harvest period, the market sells particularly large quantities of maize grain. Additionally, from September-October the rice harvest means that there is an abundance of rice for sale on the market. In the 2012 season, drought and lack of water in irrigation canals slowed rice production, but the market also sells imported goods (rice, maize meal, and wheat flour).

Northeastern Markets. The Dajabon/Ouanaminthe market in the DR town of Dajabon functions freely on Mondays and Fridays when thousands of Haitian traders cross the border to buy and sell commodities. Dominican wholesalers own depots in the market and sell commodities to Haitian buyers. The main commodities sold to Haitians are wheat flour, maize meal, and maize flour, dry beans, and fresh vegetables. Haitian traders have to purchase Dominican pesos to make their purchases in the market.

A substantial number of Haitians traders sell imported rice and maize grain to Dominican buyers. Haitian *Madam Saras* also resell maize grain previously purchased in the North and Northeast. They buy in Haitian gourdes to resell in Dominican pesos.

Credit is available to the Haitian traders. Some Dominican depot owners supply commodities to Haitians buyers on credit for a short period of time (one week). Meanwhile, Haitian wholesalers provide one-day rice credit to other Haitian merchants during free market days.

Ouanaminthe also has its own market. Saturday is the biggest market day as traders flow in from various production areas. Rice produced in neighboring plains and local maize grain and meal are the main goods sold, but imported commodities are available.

Center Markets. The three markets in this region are located in Hinche, Thomassique, and Mirebalais.

Hinche. This market mainly supplies imported commodities (rice, bulgur, wheat flour, maize meal, and vegetable oil) from Port-au-Prince. However, the team observed locally processed wheat flour for sale as well. During harvest seasons, local maize grain, sorghum, and beans are available in large quantities. The construction of the road from Hinche to Port-au-Prince in 2011 facilitates the transport of commodities.

Thomassique. Close to the DR border, this market primarily sells maize and sorghum. Significant quantities of commodities are traded with Dominicans through Banica in the DR. Broken rice from the DR are sold in large quantities. Besides maize, local Madam Saras also buy beans to sell in Port-au-Prince. They also purchase food aid (bulgur, lentils, and vegetable oil) in the market to sell in Port-au-Prince. The imported goods on the market here are sold by wholesalers who have purchased the commodities in Port-au-Prince. Depot owners selling imported goods give credit to retailers for two to three weeks. Retailers in turn give credit to consumers.

Mirebalais. Although imported rice and wheat flour are sold in the market, Mirebalais is considered a maize and sorghum market. During maize harvest seasons, *Madam Saras* from Port-au-Prince and other regions purchase significant quantities of maize grain.

Madam Saras are the main traders of broken rice from the DR. They purchase their stock at the border market in Belladères despite difficult road conditions (e.g., theft) and the small size of the marketing margin on the commodities they purchase.

Credit is available at all levels. Wholesalers and *Madam Saras* give credit to retailers who also supply consumers on credit.

Southeastern Markets. In the Southeast Department, the Jacmel market is the largest. Jacmel market serves a population of more than 50,000 local consumers. Traders also purchase products here for resale on the Léogane and Port-au-Prince markets. Goods are brought to this market from the surrounding hills and irrigated areas. Trade in Dominican products (beans, wheat flour, and maize) from the border market at Pedernales has significantly increased because of recent crop losses in Haiti from climatic events. Goods from the DR are transported first by small boats to the town of Marigot and then by truck to Jacmel.

Western Markets. Vialet is a point of sale for farmers and small traders from the West and Nippes Departments. Urban Madam Saras and consumers from the towns of Miragoâne and Petit-Goave also use this market to buy products. Goods directly imported from the border market of Jimani are traded on this market as well.

Nippes Markets. Petite Rivière market is located on the northern coast of the Nippes Department and has recently



Photo by Fintrac Inc.

A vendor sorts through his maize while waiting for customers. St. Raphael, Haiti, January 2013.

benefited from the paving of the road that connects it directly to the main national route 2 (Port-au-Prince-Les Cayes). Local surpluses of beans, sorghum, and fruit are traded and these products supply the island of La Gonâve, the city of Miragoâne, and the regional market in Fond des Nègres.

Fond des Nègres is also located on the main road and is at the center of the southern peninsula. It is the fourth largest market in the country. More than 10,000 traders and consumers are typically present on market days. It serves a large part of the southern peninsula and usually supplies neighboring regions with beans, sorghum, and vegetables. Imported rice, oil, and beans from the port of Miragoâne are sold in depots.

Southern Markets. There are four markets that supply this region.

Cavaillons. This market is located on the main highway crossing the peninsula. Local goods are brought here by traders from the smaller regional markets in Nippes and South Departments and by farmers in the surrounding irrigated plain. Beans, maize, and sorghum from the region are purchased for resale in Les Cayes, Fond des Nègres, and smaller markets along the southern coast.

Kans. Located in the Cayes plain, the market here provides cereals and beans on a national scale. Numerous small cereal mills operate in the vicinity of the market. A significant

LACK OF STANDARDIZATION

In a typical Haitian market a retail trader typically says that he is selling the commodity at the same price that he paid to purchase the item, e.g., he says he buys it at 20 HTG and sells at 20 HTG. The trader makes a profit by selling the commodity in a different unit of measurement than was previously bought so as to reserve more of his supply. This practice started because of widespread illiteracy and mistrust of weights since units of measure for agricultural products in Haiti are generally units of volume and not of weight; now, this habit has become commonplace.



Photo by Fintrac Inc.

Vendors use two slightly different marmite measures at Marché Jeudi, Les Cayes, Haiti, January 2013

proportion of local maize sold in Port-au-Prince is purchased at this market. The availability and price of maize and sorghum on this market reflects the national price.

Cayes. This market is now mainly a retail market for urban consumers to purchase imported goods since the opening of the Marché Jeudi market two years ago (described below).

Marché Jeudi. Newly created, this market is located on the northwestern fringe of Les Cayes. The opening of a paved road between Les Cayes and the towns on the western tip of the peninsula spurred the development of this market. Despite the lack of organization, this market still trades large amounts of local pulses, cereals (rice, sorghum), and peanuts from the southwestern mountains and coastal plains.

Camp-Perrin. At the intersection of the northern part of the irrigated Cayes plain and the high altitude mountains in the South and Grande Anse Departments, this market supplies cereals, beans, and tubers. Improvements in road infrastructure between the Cayes plain and Jérémie could make Camp-Perrin a major market in the future.

5.3.3 Summary of Shared Market Characteristics

Despite different locations, the local markets in Haiti possess similar characteristics that should be taken into consideration when designing future Title II programs.

City market phenomenon. Unemployment in urban areas has caused an increase in small trading activity that has extended the market to formerly residential areas. The USAID-BEST team observed this development in 2010, and the situation has worsened. With more of the population involved in trading, the margins for each trader has become increasingly slim.

Lack of standardization. For semi-wholesalers and retailers, there is no standard measurement for buying and selling. Traders typically sell in marmites or cups, and the conversion of marmites into cups varies depending on the vendor.

Varying open market days. Urban markets are permanent and open through the week, but they usually have one or two busy days when customers from neighboring areas come through the market. On the other hand, rural markets are only open to merchants on certain days (see table below for examples of market days) and they are organized so as to alternate with markets in surrounding towns. For specific agricultural

Figure 28. Market Days for Markets Visited, January-February 2013

Market Name	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Croix-des-Bossales						
Croix-des-Bouquets						
Pont-Sondé						
Gonaïves						
Bassin Bleu						
Port-de-Paix						
Ouanaminthe/ Dajabon						
Ouanaminthe Town						
Limbé						
Cap-Haitien						
St Raphael						
Hinche						
Thomassique						
Mirebalais						
Verrettes						
Jacmel						
Fond des Nègres						
Violet						
Petite Rivière de Nippes						
Cavaillon						
Marché Jeudi						
Les Cayes						
Kans						
Camp-Perrin						

Source: Created by USAID-BEST.

commodities, supply markets and retail markets sometimes occur on different days. The timing of when the market is open can directly affect food access in a voucher program as much as

distance to the nearest road leading to the market.

Credit access. Credit appears to be available to traders at all levels of the market chain. Wholesalers, semi-wholesalers, and retailers receive credit from micro-finance and commercial banks, and from their commodity suppliers. However, because of a uniform credit structure across sectors,¹⁶⁶ those in the agricultural production sector cannot receive credit because of lower returns and higher risks.

Pyramidal market structure for imports. In such a hierarchy, market competition increases moving from top to bottom of the supply chain. There are few actors at the top of the market for imported commodities such as rice, vegetable oil, and wheat, but the retail level contains thousands of actors.

Market location. Most markets in Haiti are located along major roads. The proximity of the market to these roads is important because households then have better physical access to the markets, and presumably better financial access.

Adequate supply. Availability of domestically produced commodities is seasonal, but traders sell imported goods throughout the year. For example, rice mostly grown in the Artibonite valley is on the market in large quantities from June-September, while sufficient amounts of imported rice is sold all year.

Limited interdepartmental trade of local foods. Locally produced foods tend to be marketed and consumed either in the area of surplus production or areas where consumers have the greatest purchasing power (i.e., Port-au-Prince and the DR). There is much more limited flow of locally produced foods from one part of the country to another.

5.4. SUMMARY OF KEY FINDINGS BY MARKET PLAYER

A pyramidal structure characterizes imported commodities in the Haitian market with a small number of actors at the top of the chain, and a highly competitive market at the bottom retailers level. The small processing industry also follows this structure. However, this structure does not describe the market for locally produced agricultural commodities, which contains many actors.

5.4.1 Major Importers

Most major importers in Haiti are based in Port-au-Prince and typically handle 70 to 80 percent of all imports for a certain commodity. For instance, three main importers handle around 70 percent of rice imports, two major traders, CARRIBEX and HUHASA (held by the Gilbert Bigio (GB)) Group, import vegetable oil, and one mill (LMH) dominates the wheat sector in

¹⁶⁶ Credit is negotiated and extended on the same terms for all sectors regardless of whether the beneficiary is in construction or in agriculture. Therefore, sectors with lower returns and higher risk, such as agricultural production, have less access to credit.



Photo by Fintrac Inc.
Informal stalls crowd the streets. Cap-Haitien, Haiti, January 2013.

imports of wheat grain.

One common characteristic among these major importers is that they are involved in various trading activities that may give them a degree of market control. For example, the GB Group not only dominates the edible oil market with HUHASA, but the company also owns the largest steel mill in Haiti and the only two communication companies in the country (Digicel and Voila, which recently merged in 2012). Additionally, the GB Group owns the only Haitian-owned integrated oil and gas company in Haiti (DINASA).¹⁶⁷

Similarly CARRIBEX, the other major oil importer, is involved in multiple trading and processing activities. Besides importing refined palm and soybean oil for *Ti-malice*, they also import detergents, soaps, butter, etc. Recently, CARRIBEX has gotten involved in local rice production by constructing a small size mill in the Savane Desolé area. The mill is operational as of February 2013. It currently has a capacity of 2.5 metric tons (MT) of paddy rice per hour, but the expected construction of new inputs will increase their ability to hull rice at 7.5 MT per hour in 2014 for an annual total of 23,000 MT.¹⁶⁸

5.4.2 Agro-processors

As opposed to major importers, agro-processors tend to specialize in one activity. They usually import inputs for their own operations. LMH is one such example as it produces more than 70 percent of wheat flour consumed in the country.

Since resuming operations in 2011, LMH has reached 70 percent of its pre-earthquake productivity. However, the mill still faces certain challenges:¹⁶⁹

- Increased competition from *Les Céréales de Haiti* (LCH) and the DR
- Informal imports from the DR of wheat flour
- Decline in consumer income because of Hurricanes Isaac/Sandy and drought
- Slow comeback of earthquake-destroyed small and medium-sized bakeries

¹⁶⁷ USAID-BEST, August 2010, Haiti USAID-BEST Market Analysis.

¹⁶⁸ Key informant, Port-au-Prince, January 2013.

¹⁶⁹ USAID-BEST, August 2010, Haiti USAID-BEST Market Analysis.

5.4.3 Agricultural Commodity Producers

There are 130,000 producers involved in rice production, more than 600,000 in maize production, and about 350,000 farmers in bean production. However, labor availability poses constraints on agricultural production in Haiti as most of the youth in rural areas migrate to Port-au-Prince or to the DR for seemingly more lucrative jobs.

5.4.4 Wholesalers

Both first-level and second-level wholesalers play similar functions in the Haiti. First-level wholesalers buy directly from importers and sell either directly to retailers or via second-level wholesalers (estimated at around 200 traders). Retailers in turn buy in bulk (in sacks or marmites) and then sell in smaller measurements to final consumers.

First and secondary wholesalers in the Haitian market are mainly, large and medium sized depot owners and *Madam Saras*. There are many more of these actors over importers, but the numbers vary across commodities and sectors. In the vegetable oil market for instance, key informants indicate CARRIBEX and HUHASA sell imports to approximately 400 first- and second-level wholesalers. Taking rice as another example, depot owners (first- and second-level wholesalers) import rice and then sell to a numerous network of *Madam Saras* and retailers in the local rice market.

5.4.5 Retailers

The retail market includes *Madam Saras* and depot owners who sell in retail and wholesale, and petty retailers who sell directly to consumers. *Madam Saras* and depot owners are better organized as they act as both wholesalers and retailers. They have better information networks that give them advantage over petty retailers. For example, rural *Madam Saras* from production zones contact urban *Madam Saras* on a regular basis to provide them price information from source markets so that urban *Madam Saras* can establish a selling price in the urban markets. Similarly, some depot owners have agents at border points who inform them about current prices at the source of production.

There are a large number of petty retailers operating in highly competitive markets. They have little information on prevailing prices in source markets, but they receive signals from *Madam Saras* and depot owners engaged in wholesale and retail transactions. Recently, the destruction of livelihoods and high unemployment rates caused by the earthquake and severe weather events has led to a disproportionate increase in the number of small traders, many of them with no prior experience in retail, operating in “city-markets.” Such a phenomenon has significantly lowered the potential profit for each individual small trader.

5.5. MARKET IMPLICATIONS

No institutional regulation bars entry to any of the markets. However, at the import level, because a small number of actors handle large quantities, they could influence market prices. Evidence of such collusion activities have been seen in the import market for rice, according to one key informant.

In terms of performance, supply seems adequate for imported and locally produced commodities. However, the availability of local foods is seasonal, interdepartmental trade is limited, and surpluses of locally produced foods tend to flow to Port-au-Prince and the DR rather than to other rural areas in the country. Seasonal targeting will be critical for the success of a voucher program, and may encourage improved interdepartmental trade of local foods by increasing the buying power of consumers in rural areas.

5.5.1 Market Efficiency and Integration

Analyzing market integration helps assess market efficiency.¹⁷⁰ Using imported and local rice as an example, FEWS NET and CNSA data collected in 10 Haitian markets from January 2005-January 2013 indicate that the markets for local rice are moderately integrated. The following discussion breaks down this information into three time periods, 2005-13, 2010-13, and 2012-13 to provide a clearer understanding of how the relationship between markets has evolved at different times. In general, from 2005-13, among the 45 existing links of these 10 markets, only 18 appear significant.¹⁷¹ Results of price analysis, as indicated in the table below, show that for local rice, Port-au-Prince is not significantly linked to any of the other nine markets. This lack of integration could be caused by the absence of rice-producing areas that typically sell to Port-au-Prince in those markets for which FEWS NET and CNSA gathered data.

Table 23. Correlation of Local Rice Prices, 2005-13

	Port-au-Prince	Cayes	Jeremie	Jacmel	Fond des Nègres	Cap-Haitien	Ouanaminthe	Port-de-Paix	Gonaives	Hinche
Port-au-Prince	1									
Cayes	0.108	1								
Jeremie	0.101	0.004	1							
Jacmel	0.121	0.091	0.752	1						
Fond des Nègres	0.019	-0.131	0.083	0.583	1					
Cap-Haitien	-0.119	0.573	0.483	0.293	0.798	1				
Ouanaminthe	0.134	0.647	0.647	0.495	-0.095	0.171	1			
Port-de-Paix	-0.045	-0.046	0.038	0.375	0.922	0.296	0.211	1		
Gonaives	0.022	0.850	0.975	0.848	0.761	0.918	0.772	0.344	1	
Hinche	-0.082	0.877	0.915	0.764	-0.059	0.449	0.719	0.100	0.912	1

Source: Created by USAID-BEST, using FEWSNET and CNSA data.

After the earthquake, the market for local rice prices appear less integrated since eight links are significant as compared to 18 for the overall period of 2005-13. As the following table indicates, in the south and southwest regions, Fond des Nègres and Jacmel are integrated only weakly. The northern part of the country shows a better degree of correlation across three markets: Cap-Haitien and Port-de-Paix, Cap-Haitien and Gonaives, and Gonaives and Port-de-Paix. The stronger linkages between these markets could be because they did not experience as significant damages from the earthquake or Hurricanes Isaac and Sandy.

¹⁷⁰ Market integration is understood here as the degree to which markets are sharing information.

¹⁷¹ Significance indicates a high level of market integration.

Table 24. Correlation of Local Rice Prices, 2010-13

	Port-au-Prince	Cayes	Jeremie	Jacmel	Fond des Nègres	Cap-Haitien	Ouanaminthe	Port-de-Paix	Gonaves	Hinche
Port-au-Prince	1									
Cayes	0.204	1								
Jeremie	-0.103	-0.275	1							
Jacmel	0.161	-0.188	0.152	1						
Fond des Nègres	0.019	-0.131	0.083	0.583	1					
Cap-Haitien	-0.192	0.120	-0.018	0.068	0.798	1				
Ouanaminthe	-0.005	0.457	-0.077	0.110	-0.095	0.070	1			
Port-de-Paix	-0.045	-0.338	0.248	0.791	0.622	0.621	0.117	1		
Gonaves	0.022	-0.060	0.032	0.436	0.761	0.756	0.205	0.898	1	
Hinche	-0.063	-0.092	0.099	0.282	-0.059	-0.173	0.055	0.183	-0.078	1

Source: Created by USAID-BEST, using FEWS NET and CNSA data.

Since 2012, because of road improvements that have occurred as a result of Government of Haiti (GoH) initiatives, more markets are integrated. The table below shows that the market linkage for local rice increased to 10 significant links from 8 in 2010-13.

Table 25. Correlation of Local Rice Prices, 2012-13

	Port-au-Prince	Cayes	Jeremie	Jacmel	Fond des Nègres	Cap-Haitien	Ouanaminthe	Port-de-Paix	Gonaves	Hinche
Port-au-Prince	1									
Cayes	-0.184	1								
Jeremie	-0.175	-0.322	1							
Jacmel	0.169	-0.523	0.227	1						
Fond des Nègres	0.039	-0.019	-0.037	0.606	1					
Cap-Haitien	-0.093	0.050	-0.032	0.587	0.938	1				
Ouanaminthe	0.331	0.338	-0.231	-0.349	-0.188	-0.204	1			
Port-de-Paix	0.548	-0.115	-0.140	0.346	0.756	0.774	0.517	1		
Gonaves	0.002	0.029	-0.019	0.508	0.793	0.855	-0.179	0.462	1	
Hinche	0.105	-0.229	0.082	0.111	-0.129	0.148	-0.018	-0.076	0.154	1

Source: Created by USAID-BEST, using FEWS NET and CNSA data.

However, for imported rice, market links seem stronger. Port-au-Prince exhibits the highest integration with other markets, possibly because most of the imported rice in Haiti arrives through Port-au-Prince before re-sale in markets across the country. Fond des Nègres shows the weakest correlation because it only recently expanded as a market in the Nippes region.

Table 26. Correlation of Imported Rice Prices, 2005-13

	Port-au-Prince	Cayes	Jeremie	Jacmel	Fond des Nègres	Cap-Haitien	Ouanaminthe	Port-de-Paix	Gonaves	Hinche
Port-au-Prince	1									
Cayes	0.700	1								
Jeremie	0.607	0.597	1							
Jacmel	0.813	0.592	0.823	1						
Fond des Nègres	0.754	0.657	0.806	0.697	1					
Cap-Haitien	0.550	0.589	0.497	0.678	0.599	1				
Ouanaminthe	0.675	0.688	0.679	0.684	0.745	0.636	1			
Port-de-Paix	0.624	0.554	0.350	0.684	0.812	0.587	0.362	1		
Gonaves	0.892	0.685	0.686	0.912	0.732	0.716	0.717	0.670	1	
Hinche	0.548	0.428	0.548	0.410	0.398	0.382	0.439	0.1758	0.415	1

Source: Created by USAID-BEST, using FEWS NET and CNSA data.

The earthquake in January 2010 slightly affected the integration of these import markets, but overall they showed higher levels of correlation than the market for local rice. Notably, as the table below shows, Port-de-Paix and Jérémie seem to have the weakest correlation after 2010.

Table 27. Correlation of Imported Rice Prices, 2010-13

	Port-au-Prince	Cayes	Jeremie	Jacmel	Fond des Nègres	Cap-Haitien	Ouanaminthe	Port-de-Paix	Gonaves	Hinche
Port-au-Prince	1									
Cayes	0.204	1								
Jeremie	-0.103	-0.275	1							
Jacmel	0.161	-0.188	0.152	1						
Fond des Nègres	0.019	-0.131	0.083	0.583	1					
Cap-Haitien	-0.192	0.120	-0.018	0.068	0.798	1				
Ouanaminthe	-0.005	0.457	-0.077	0.110	-0.095	0.070	1			
Port-de-Paix	-0.045	-0.338	0.248	0.791	0.622	0.621	0.117	1		
Gonaves	0.022	-0.060	0.032	0.436	0.761	0.756	0.205	0.898	1	
Hinche	-0.063	-0.092	0.099	0.282	-0.059	-0.173	0.055	0.183	-0.078	1

Source: Created by USAID-BEST, using FEWS NET and CNSA data.

Road rehabilitation after 2011 has also improved market integration for the imported rice market. Once again, the import markets shows better market linkages than the local rice market, and Port-au-Prince is the most integrated with other Haitian markets.

Table 28. Correlation of Imported Rice Prices, 2012-13

	Port-au-Prince	Cayes	Jeremie	Jacmel	Fond des Nègres	Cap-Haitien	Ouanaminthe	Port-de-Paix	Gonaves	Hinche
Port-au-Prince	1									
Cayes	0.700	1								
Jeremie	0.607	0.597	1							
Jacmel	0.813	0.592	0.823	1						
Fond des Nègres	0.754	0.657	0.806	0.697	1					
Cap-Haitien	0.550	0.589	0.497	0.678	0.599	1				
Ouanaminthe	0.675	0.688	0.679	0.684	0.745	0.636	1			
Port-de-Paix	0.624	0.554	0.350	0.684	0.812	0.587	0.362	1		
Gonaves	0.892	0.685	0.686	0.912	0.732	0.716	0.717	0.670	1	
Hinche	0.548	0.428	0.548	0.410	0.398	0.382	0.439	0.1758	0.415	1

Source: Created by USAID-BEST, using FEWS NET and CNSA data.

In sum, the market for imported rice seemingly functions more efficiently than the market for locally produced rice. After the earthquake, markets linkages in Haiti declined, but recent road improvements have resulted in markets operating more efficiently.

5.6. IMPLICATIONS OF FINDINGS, AND RECOMMENDATIONS FOR TITLE II PROGRAMMING

The availability of food on local markets is conducive to a national food voucher program. The effectiveness of the current credit system indicates that the introduction of a voucher system will not adversely affect the market by placing substantial upwards pressure on prices in larger markets. However, in smaller markets where voucher beneficiaries often live, prices may increase significantly. Given that the program intends to stimulate local production, the GoH and donors, including USAID, will need to implement programs that will affect the supply side of the market in some areas targeted by the food voucher to ensure an adequate supply without undue pressure on production costs, and therefore, retail prices. As with any voucher system, however, merchants who perceive an opportunity to profit could speculate and increase the price of their commodities. According to USAID, price monitoring for current programs have not found increased commodity prices so far. However, USAID and the future Title II awardee will need to guard against this action by closely monitoring prices during implementation.

Consumers tend to purchase imported goods because imported foods are available all year, USAID and the GoH need to tie the voucher to local products if the vouchers are intended to stimulate local agricultural production. Seasonal targeting will be critical for the success of a voucher program. Future awardees should carefully consider the timing and duration when distributing the vouchers. Local commodities are scarce during lean season, when beneficiaries are likely most in need. Title II partners in the next cycle should analyze the production seasonality across regions to better understand the potential for suppliers to source foods through interdepartmental trade so as to ensure a consistent supply of local commodities. As noted above, interdepartmental trade of local foods is limited by low

purchasing power in rural areas, which limits incentives for traders to move goods across the country; instead, traders tend to move local products to Port-au-Prince or the DR. With careful design, the food voucher program will increase the buying power of consumers in rural areas sufficiently to encourage more interdepartmental trade.

Most merchants interviewed during the USAID-BEST field visit said they would accept the vouchers, but some said they would only do so if other merchants agreed as well. Awardees should expect to provide more information and training to merchants and beneficiaries as they roll out the food voucher program. If the voucher extends to local merchants, such as *Madam Saras*, retailer measurement standards need to be established to ensure the beneficiary is receiving the planned ration.¹⁷²

172 Some key informants believe that this would not be a problem in Haiti because most people understand these measurements.



CHAPTER 6 DISTRIBUTED FOOD AID

Title II partners distribute these bags of wheat soy blend to low-income households. This bag was found for sale at a market (Marché Jeudi). Les Cayes, Haiti, January 2013.

Photo by Fintrac Inc.

6.1. INTRODUCTION

This chapter provides key considerations for distributed food aid under the new Title II development food aid program. The new program cycle specifically requests only 1,000 days/ Maternal Child Health and Nutrition (MCHN) programming for Title II in-kind resources. This chapter focuses on geographic targeting and commodity selection to inform a 1,000 days program; seasonal and household targeting are not relevant under a blanket preventive approach to malnutrition and therefore are not discussed.

6.2. GENERAL GUIDELINES

The fiscal year (FY) 13 Title II Request for Applications (RFA) for Haiti provides a number of considerations relevant to future programming under the new Title II development cycle. The goal of the new RFA, and an important mission for the Government of Haiti (GoH), is to reduce “the overall proportion of the population depending on food assistance.”¹⁷³ The RFA specifically calls for 1,000 days programming to target pregnant and lactating women, and children 6-23 months to prevent and treat malnutrition, using “direct distribution of a nutritionally sound basket of Title II commodities including, but not limited to, fortified blended

foods.”¹⁷⁴ Community Development Funds of US\$12 million per year will support food voucher programming which should target locally produced foods. Monetization will not take place as a funding mechanism.

6.2.1 Geographic Targeting

Geographic targeting will be a very important consideration for the new Title II cycle because it is one of the only elements of program design that can be adjusted. Targeting of a 1,000 days program in geographic areas where a relatively large proportion of the population is poor and suffers poor nutrition outcomes suggest a blanket preventive food-based nutrition program is more likely to increase food consumption rather than to substantially disrupt markets.

Please see the figure on the next page for relative poverty levels by Department and by wealth quintiles.¹⁷⁵ The five Departments with the most individuals in the lowest wealth quintile are the Center, Grand Anse, Artibonite, Nippes, and South Departments.¹⁷⁶

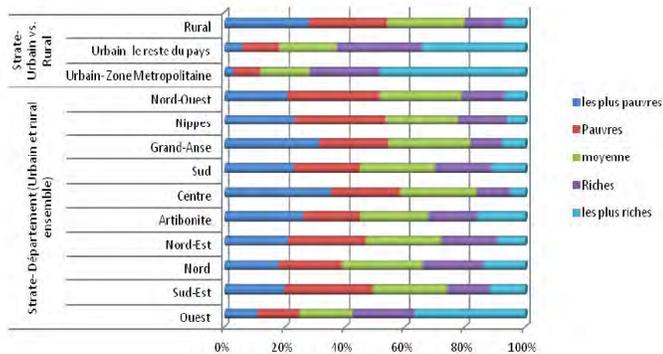
173 United States Agency for International Development (USAID), 2013, *Fiscal Year 2013: Title II Request for Applications; Title II Development Food Assistance Programs*.

174 United States Agency for International Development (USAID), 2013, *Fiscal Year 2013: Title II Request for Applications; Title II Development Food Assistance Programs*.

175 CNSA, 2011, *Enquête d'Évaluation de la Performance de la Campagne de Printemps 2011 et Analyses des Marchés et de la Sécurité Alimentaire*.

176 CNSA, 2011, *Enquête d'Évaluation de la Performance de la Campagne de Printemps 2011 et Analyses des Marchés et de la Sécurité Alimentaire*.

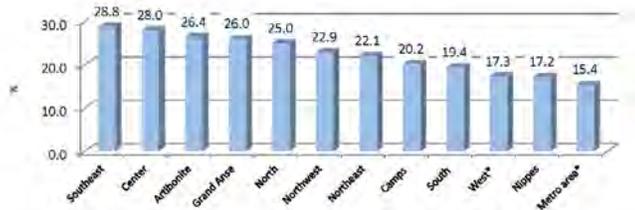
Figure 29. Poverty Distribution In Haiti By Department, By Wealth Quintile



Source: CNSA/ENS, National Food Security Survey, 2011
 Note: Urban le reste du pays= Urban areas outside of PaP; Urban-Zone Métropolitaine=Urban area of greater PaP; Départements: Nord-Ouest=Northwest; Sud=South; Nord-Est=Northeast; Nord=North; Sud-Est=Southeast; Ouest=West; Wealth Quintiles: les plus pauvres=the poorest 0-20%; pauvres=poor; 21-40%; moyenne=average, 41-60%; riches=rich, 61-80%; les plus riches=the richest, 81-100%.

The RFA for USAID/Haiti specifically requests that 1,000 days programming target those “food insecure communes with the highest levels of stunting.”¹⁷⁷ Although there are poverty pockets within Departments, Department-level nutrition indicators provide a reference point to assess geographic variation in nutrition outcomes. Two national surveys provide some indication of the prevalence of stunting in children under 5 across the various Departments of Haiti.¹⁷⁸

Figure 30. Stunting Rates By Department/Area, 2012



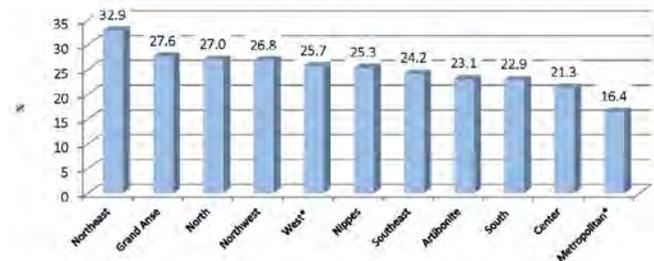
Source: Haiti DHS, 2012
 *Camps are excluded from West Department and Metropolitan zone; instead, rates for camps are reported separately.

According to the 2012 Demographic and Health Survey (DHS), Southeast, Center, Artibonite, Grand Anse, and North Departments ranked in the top five for the highest incidents of stunting. Per the Ministry of Public Health and the Population (MSPP, *Ministère de la Santé Publique et de la Population*)/UNICEF/WFP 2012 SMART survey, shown in the graph below, Northeast, Grand Anse, North, Northwest, and West Departments

177 United States Agency for International Development (USAID), 2013, *Fiscal Year 2013: Title II Request for Applications; Title II Development Food Assistance Programs*.

178 Institut Haïtien de l'Enfance (IHE) and Measure DHS ICF International, September 2012, *Enquête Mortalité, Morbidité et Utilisation des Services EMMUS-V*. MSPP/UNICEF/WFP, 2012, MSPP/UNICEF/WFP Smart Survey Malnutrition.

Figure 31. Stunting Rates By Department/Area, 2012



Source: GOH MSPP/UNICEF/WFP SMART Survey, 2012.
 *Camps are included within “West” and “Metropolitan” categories.

exhibited the highest rates.

DHS reports the national average for stunting is 21.9 percent, while the national average for stunting from the MSPP/UNICEF/WFP SMART survey is 23.4 percent.¹⁷⁹ Therefore, the top five Departments with the highest rates of stunting in both surveys are all higher than the measured national average. Displaced camp populations are included separately in the DHS (and left out of measurements for West Department and Metropolitan zone), whereas they are included for the MSPP/UNICEF/WFP SMART survey in the above figure under the West Department and Metropolitan.

According to World Health Organization (WHO) standards, Haiti’s national stunting average places the country on the cusp of “low” to “medium” prevalence. However, the higher departmental prevalence means large swaths of Haiti’s rural population are solidly in the medium to nearly high prevalence categories.¹⁸⁰

Once Department level data on poverty and stunting are combined to rank geographic areas where access and utilization appear poorest, the ranking of Departments differs depending on which survey is used to report stunting prevalence. Center, Grand Anse, and Artibonite are in the top three when the DHS figures are used. However, based on SMART survey results, the only Department with the highest stunting prevalence that also appears among the top five poorest Departments is Grand Anse. In fact, Grand Anse is the only Department where all three survey indicate access and utilization are among the poorest in the country. Importantly, neither poverty or stunting statistics are available at the commune level, and poverty and stunting rates likely vary quite a bit within each Department. Awardees should undertake detailed baseline needs assessments within Departments and communes, and local/regional market analysis to better understand their operating environment.

179 MSPP/UNICEF/WFP, 2012, *MSPP/UNICEF/WFP Smart Survey Malnutrition*. Institut Haïtien de l'Enfance (IHE) and Measure DHS ICF International, September 2012, *Enquête Mortalité, Morbidité et Utilisation des Services EMMUS-V*.

180 WHO, 2013, WHO Global Database on Child Growth and Malnutrition. <http://www.who.int/nutgrowthdb/about/introduction/en/index5.html>, accessed February 2013. The WHO classifies stunting prevalence as follows: below 20 is low, 20-29 is medium, 30-39 is high, and 40 and above is very high.

Prospective awardees should take into account potential programmatic overlaps with Feed the Future activities. Haiti is a Feed the Future focus country, which means it partakes in USAID activities that aim to increase local agricultural production. One such Feed the Future project is the USAID Watershed Initiative for National Natural Environmental Resources program implemented by Chemonics that currently takes place in the central agricultural corridors of the country. A second, planned Feed the Future program will target Haiti's Northern Corridor, and further Feed the Future funding could target more Haitian agricultural development programs.

Future awardees should also consider Ministry of Agriculture, Natural Resources, and Rural Development priorities and other GoH food security and agricultural strategies and programs such as *Aba Grangou*, *Kore Fanmi*, and *Ti Manman Cheri*. Awardees should be aware of school feeding programs, especially WFP's support to the GoH National School Meals Program, which will target areas of highest vulnerability.¹⁸¹

Implementing partners should balance the goal of targeting interventions to maximize impact in poor areas and the objective of reaching the most beneficiaries within those poorest areas. For example, a vulnerable area may merit 1,000 days programming and a school feeding intervention over a five-year program cycle to maximize long-term development gains. However, two similar, vulnerable areas may merit separate interventions to reach more individuals. Specifically for food aid interventions, if a particular area has a large food aid program or multiple food aid programs, then additional Title II activity could negatively affect local/regional markets. Ultimately, future Title II awardees must analyze these competing priorities and dynamic local conditions to program effectively. When considering geographic targeting for 1,000 days programming, awardees should also assess the availability/capacity of local partners, government capacity, available infrastructure, population density, and degree of market integration.

6.2.2 Seasonal Targeting

Seasonal targeting does not apply to 1,000 days programming, as rations are intentionally provided continuously for the entire time period that the pregnant/lactating mother and child qualify for the program.

6.2.3 Household Targeting

Household targeting does not apply to 1,000 days programming, as rations are determined by whether a woman is pregnant or has an infant in the target age range of up to 23 months old.

Awardees should be vigilant about the possible sharing of 1,000 days rations. Aside from the effect sharing may have on overall monitoring and performance of 1,000 days activities, sharing may also displace some of the market purchases the household would normally make. All three Multi-Year Assistance Program

¹⁸¹ Email correspondence with WFP/Haiti, February 2013. Updated CNSA/FEWS NET data lists national areas of concern in 2013 for food insecurity.

(MYAP) partners, and several current beneficiaries offered anecdotes of some ration sharing, but interviewees reported that households shared small quantities of these rations with other family members or neighbors.¹⁸²

6.2.4 Type of Activities

The RFA states that direct distribution will only be considered for 1,000 days programming, and other program activities involving direct distribution of Title II food aid will not be considered.

6.2.5 Commodity Selection

The RFA prioritizes fortified blended foods for 1,000 days programming, but other food commodities can also be considered. While Corn Soy Blend (CSB), Wheat Soy Blend (WSB), and Soy Fortified Bulgur (SFB) have all been used for Title II MYAP activities, beneficiaries for 1,000 days/MCHN programming in Haiti prefer CSB. Beneficiaries and MYAP awardees generally agreed that all three blended cereal products are appropriate because of high-protein content. Some field interviews reported that CSB and WSB may have shorter than normal shelf-lives because of the heat and humidity prevalent in many storage areas for current Title II programming. One MYAP partner reported that its programming staff slightly prefers WSB over CSB because of WSB's slightly longer shelf-life.

USAID-BEST witnessed minimal quantities of verifiable Title II food aid for sale in markets during the field visit in January 2013. Commodities included vegetable oil, SFB, WSB, and lentils in two markets in South Department and two markets in Central Department. At two Les Cayes markets, vendors sold Title II vegetable oil, SFB and WSB in small quantities. In Hinche and Thomassique in Central Plateau, WFP vegetable (sunflower) oil and lentils were being sold; there may have been Title II lentils and SFB for sale as well, but not in their original packaging. The



Photo by Fintrac Inc.

A CRS warehouse contains bags of USAID food aid ready for direct distribution. Les Cayes, Haiti, January 2013.

¹⁸² Key informant interviews, West/South/Southeast Departments and Port-au-Prince, January 2013.

wide availability of bulgur wheat, almost all of which is sold out of bulk containers so not in original packaging, suggests that at least some of the bulgur on the market originated from Title II food aid, rather than only through commercial import channels. The USAID-BEST team did not see CSB for sale at any of the markets visited.

USAID and awardees should consider the feasibility of incorporating local fortified food commodities to complement the goals of voucher programming that will target Haitian agricultural products. USAID and potential awardees should explore whether it is feasible or appropriate to incorporate these foods into 1,000 days programming, or simply to target them under a voucher program. Locally blended foods, such as AK-100 (*akasan*, includes milk, corn flour, and spices), AK-1000 (*akamil*, includes pulses, cereal and fortificants), *Medikamamba* (produced in Cap Haitien by Meds and Foods for Kids), and *Nourimanba* (a peanut paste that Partners in Health at Cange, Central Plateau will likely produce), and local pulses should all be considered for targeted distributions to vulnerable populations to increase demand for local production; in so doing, awardees will help work towards the goal of making overall Title II developmental food programming more sustainable.

The current MYAP partners distribute Title II pulses, but future awardees should consider the commodity for local purchase in their new voucher program because there is no significant difference in quality between Haitian-grown and US-grown pulses.

However, Title II fortified vegetable oil is generally of a higher quality than typical vegetable oil for sale on Haitian markets (which is almost all imported). Awardees should continue to directly distribute this item rather than use local vouchers for purchasing locally-available vegetable oil.

6.3. GENERAL CONSIDERATIONS

Reduced tonnages are expected under the next Title II program cycle because direct distribution programming is limited to 1,000 days activities, and the majority of Community Development Funds will go towards food vouchers. Therefore, USAID-BEST expects minimal Bellmon concerns for the new Title II cycle, based on current MYAP distributed food aid programming levels.

Corruption is a significant operational concern in Haiti because it could result in substantial inclusion errors that could negatively affect local markets. New Title II development food assistance programming, including future direct distribution and food voucher programming, should ensure that interventions will be accountable and transparent. Safeguards should be put in place at all levels of programming to minimize opportunities for corruption. Previous USAID-BEST Haiti studies noted significant quantities of Title II SFB available for sale on local markets. Whether these leakages resulted from corruption or simply self-monetization by beneficiaries is unclear. During the January

2013 field visit, the USAID-BEST team witnessed minimal quantities of verifiable Title II food aid for sale in markets. This may reflect the fact that actual distributed tonnages for Title II SFB have declined significantly in FY12 (6,360 metric tons (MT)) and FY13 (3,099 MT) from a peak in FY10 (31,900 MT) in direct response to the earthquake. Nonetheless, awardees should monitor this issue in the new Title II cycle.

During field interviews in January 2013, the USAID-BEST team heard positive and negative anecdotal comments about the 1,000 days implementation model from each of the three Title II partners and directly from beneficiaries. MYAP partners stated that they believe access and utilization of family planning services had increased in some of their programming areas because targeted women and friends visited clinics and received health education messages. One negative comment noted a rise in pregnancies in one rural area and the possibility of this phenomenon being linked to public perceptions of 1,000 days programming. Future awardees should recognize these comments, sensitize beneficiaries and communities to the goals of the 1,000 days program, promote self-consumption of rations for targeted individuals to maximize benefits, and continue to provide general and reproductive health education. Finally, to ensure beneficiaries fully consume food rations, potential awardees should reflect on the lessons learned from current and past MYAP partners, and apply them when designing 1,000 days program activities.



CHAPTER 7 LOCAL AND REGIONAL PROCUREMENT, CASH, AND FOOD VOUCHERS

Two women sort local rice. Limbé, Haiti, January 2013.

Photo by Fintrac Inc.

7.1 INTRODUCTION

Local and regional procurement (LRP) allows for the local 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 donor distribution of food that has been purchased in a neighboring country.

This chapter describes the use of LRP, cash, and vouchers designed and executed in the aftermath of the January 2010 earthquake and provides recommendations for the design of the food voucher program in the next Title II cycle. To inform anticipated Title II support for the national safety net program, the chapter presents electronic transfer options and highlights the major local market conditions that will influence whether a national voucher program can effectively target local production.

7.2 INVENTORY OF LRP PROGRAMS

7.2.1 WFP¹⁸³

WFP, with support from the French Cooperation (*Coopération Française*), has been the main agency engaged in local procurement in Haiti. Active since 1969, the WFP represents the most important buyer of locally procured food aid in Haiti. WFP

continues to coordinate with the Ministry of Agriculture, Natural Resources, and Rural Development (MARNDR, *Ministère de l'Agriculture, des Ressources Naturelles et du Développement Rural*) to create local purchase working groups within the National Committee for Food Security (CNSEA, *Coordination Nationale pour la Sécurité Alimentaire*) that explore possibilities for buying from small farmers and guaranteeing processes along the supply chain. WFP locally purchased nearly 3,400 MT of rice, maize meal, and milk in 2012, which was distributed to school children throughout the country as part of the National School Meals Program, (*NSMP, Programme National de Cantines Scolaires*).¹⁸⁴

In 2011, of its total food procured, WFP bought 20 percent of this amount locally, and this percentage increased to 27.3 percent in 2012. One important challenge to local procurement lies with the quality standards required by WFP, which are often higher than what is available locally, e.g., WFP refused 10 percent of cereals procured locally by the French Cooperation in 2012.

Another potential difficulty for the WFP is pricing because the prices of locally produced commodities are sometimes higher than international prices (as is the case for rice in Haiti). WFP will only accept donations from donor countries to use for local purchasing if those donor countries agree to the condition that WFP may purchase food locally at a higher price than the international price.

¹⁸⁴ WFP, 2013, *WFP/Haiti Local Purchases Factsheet*, and field interview with WFP Staff, Port-au-Prince, January 2013.

¹⁸³ Interviews with WFP Staff, Port-au-Prince, January 2013.

Current WFP programs are concentrated around two focus areas: a Protracted Relief and Recovery Operation (PRRO) and a Development (DEV) Program.

DEV Program. WFP's largest development program is the school feeding program (NSMP), which began in January 2012 and will run to the end of 2014.¹⁸⁵ In July 2013, school feeding activities previously funded under the PRRO (200,000 students) will transfer to the DEV Program.¹⁸⁶ The DEV Program supports an additional 485,000 children in five Departments selected on the basis of levels of food insecurity, vulnerability to food insecurity, and low rates of school enrollment. The food ration consists of 120 grams (g) of cereals, 30 g of pulses, 10 g of oil, and 5 g of salt per child per day.¹⁸⁷

Under the NSMP, WFP also provides policy support to MARNDR and the Ministry of Education to develop a national policy for local procurement through a Memorandum of Understanding with the Government of Haiti (GoH). MARNDR has chosen the school feeding program as an entry point for its local purchase strategy to stimulate the agriculture sector, benefit small farmers and associations, and provide a stable market for locally produced foods.

Pilot Programs. Under their handover by 2030 strategy, WFP has implemented two pilot programs designed to test sustainability in the long run.

Let Agogo nan lekòl la is a project that started in 2012 under the school feeding program which provides locally produced milk to 24,000 children in 72 schools.¹⁸⁸

Another pilot program budgeted at US\$2 million will provide food assistance to 3,700 students in the Southern Petite Rivière de Nippes commune. It is scheduled to run through the 2014/15 school year and will target 25 schools to provide wet meals, snacks, and vitamins.¹⁸⁹

7.2.2 French Cooperation¹⁹⁰

The French Cooperation has been a longstanding partner of WFP. In 2012, it supported WFP activities by procuring 1,590 MT of cereals, which represented 32 percent of WFP local cereal purchases that year. This total broke down into 1,265 MT of rice and 325 MT of maize meal purchased from four partner farmers associations in North and Artibonite Departments.

Since 2005, these farmers associations have provided 10,393 MT of cereals. This total represents 96 percent of the local food purchases by the French Cooperation. This amount broke down into 8,211 MT of rice, 2,157 MT of maize meal and 25 MT of

¹⁸⁵ WFP, 2011, *WFP Development Projects-Haiti 200150*.

¹⁸⁶ Email correspondence with WFP/Haiti, March 2013.

¹⁸⁷ WFP, 2011, *WFP PRRO 2011*.

¹⁸⁸ WFP, 2013, *LRP-Petite Rivier de Nippes, Lait Agogo*.

¹⁸⁹ WFP, 2013, *LRP-Petite Rivier de Nippes, Lait Agogo*.

¹⁹⁰ Ambassade de France en Haiti (2012). *Aide Alimentaire: Bilan de l'Utilisation des Credits 2012 et Previsions des Besoins pour 2013*.

beans, which the French Cooperation then distributed to WFP.

7.2.3 Non-Governmental Organizations (NGOs)

NGOs have supported local procurement primarily through Cash-for-Work (CFW), as described under the Inventory of Cash Programs below, and cash vouchers (mostly under USAID Emergency Food Security Program (EFSP) grants, later described in the voucher section).

7.2.4 Program Results and Lessons Learned

A sudden increase in demand, such as through LRP, could lead to increases in local food prices or substitution by additional food imports. To counter these possibilities, local procurement schemes should seek to boost local production while introducing changes in the market gradually to minimize distortions.

Flexibility is required to follow the availability of local produce given the seasonality of production. Since local production is widely known to cover about 20 percent of the country's food needs, work should continue with farmers associations to improve yield, produce quality, and post-harvest management. Incremental purchases of local production are an important approach to avoid creating inflationary pressure on local food markets. Currently, maize presents the most potential for steady supply throughout the year as its local production covers 90 percent of domestic needs.

7.3 INVENTORY OF CASH PROGRAMS

A large number of organizations adopted an emergency cash transfer program in response to the January 2010 earthquake. During the first 18 months, 111 humanitarian actors disbursed US\$1.69 billion, and 60 percent of non-food item support was paid in cash.¹⁹¹ Organizations, such as Catholic Relief Services (CRS), carried out their largest cash transfer programs to date at this time. These kinds of large-scale interventions are discussed in the following sections.

7.3.1 Program Details

WFP. WFP's emergency operation, "Food Assistance to Earthquake-Affected Populations in Haiti," launched January 15, 2010 and provided general food distributions in Port-au-Prince and surrounding areas. The response assisted up to two million people per month for the first two months of immediate assistance.¹⁹² Afterwards, WFP introduced conditional and targeted food assistance and other activities to accelerate early recovery, such as incorporating local purchase into the emergency school feeding program.

CFW and Food-for-Work (FFW) programs were then planned in February 2010 with the initial ration split of 60 percent cash and 40 percent food. The program reached roughly 35,000

¹⁹¹ UNDP, 2012, *UNDP Lessons Learned Cash Transfers Haiti*.

¹⁹² Interview with WFP Field Staff, Port-au-Prince, January 2013.

beneficiaries by June 2010.¹⁹³ The WFP employed blanket targeting based on self-selection for the CFW program and geographic targeting based on the earthquake-affected zones identified in the CNSA *Enquête sur la Sécurité Alimentaire en Période de Soudure* and the areas hit by Hurricanes Isaac, Sandy, and drought. CFW workers were limited to 15-day rotations during the emergency response phase, but this limit later increased to 24 days during the rehabilitation phase.¹⁹⁴ Earnings from a CFW rotation of 15 days (3,000 Haitian Gourdes (HTG) total at 200 HTG per day) represent approximately 80 percent of the food basket per month for an average household. WFP did not program CFW in 2012 under the PRRO, but plans to implement US\$5.2 million in new CFW programming in 2013 under the extended PRRO.¹⁹⁵

As of March 2013, the CFW minimum wage is 200 HTG. However, the minimum agricultural wage is 50 HTG per day.¹⁹⁶

For FFW programs, the ration comprises 300 g of cereals, 50 g of pulses, 25 g of oil, and 5 g of salt per person per day.¹⁹⁷

CRS.¹⁹⁸ With its Port-au-Prince Earthquake Response, CRS designed the largest CFW program in its history in terms of number of beneficiaries and dollars spent.

Within weeks of the earthquake, the CFW initiative provided more than 200,000 jobs to more than 19,000 earthquake affected households. CFW served as the mechanism for distributing more than one million meals, the construction of 506 ventilated pit latrines, 95 hand washing stations, 381 bathing facilities, 29 emergency water points, and the construction of more than 9,000 meters of drainage canals in internally displaced persons (IDP) camps in the Port-au-Prince metropolitan area. The program facilitated community demolition of homes, removed more than 13,000 cubic meters of rubble, and constructed more than 3,000 transitional shelters for earthquake-affected families in Christ Roi, Mais Gate, Carrefour, the Terrain Toto Village, and Delmas 62/Nerette.

CRS aimed to select 50 percent male and 50 percent female participants in every project. Through a participatory stakeholder analysis, CRS identified culturally acceptable, needed work projects for female and male beneficiaries, which included activities at various levels of labor intensity.

CRS and local partners were responsible for interviewing and ranking vulnerability based on the following criteria:

- Household Information
- Household Income

193 Interview with WFP Field Staff, Port-au-Prince, January 2013.

194 The exact rehabilitation phase varies by the GoH and international organizations, but generally denotes June/July 2010.

195 Phone interview, WFP/Haiti, March 2013.

196 WFP, 2011, *WFP PRRO 2011*.

197 WFP, 2011, *WFP PRRO 2011*.

198 USAID-BEST field interviews.

- Household Residence
- Some General observations about household vulnerability

With support from local partners and the local government, CRS developed a prioritization formula/tool to rank and select projects and beneficiaries based on the above criteria.

Single mothers and handicapped families accounted for 4,000 of the total beneficiaries, but CRS/Haiti stated that the selection criteria needed to be more flexible to ensure that the poorest populations would receive access to cash transfer programs. Other important highlights of the program included the introduction of short-term health insurance for all beneficiaries and their dependent children and the usage of mobile money as a means of transferring cash to beneficiaries.

CRS also gathered a CFW task force to centralize activities with other sectors (Shelter, Water, Sanitation, and Hygiene, Distribution, Protection, etc.). The creation of this team improved the selection of vulnerable populations, the quick and safe disbursement of funds to beneficiaries, standardizing beneficiary work rotations and schedules, the tracking of targets, and overall administration of CFW as an integral part of CRS' emergency response.

Table 29. CRS CFW Program Summary

Name	Port-au-Prince Cash-for-Work Earthquake Response
Donors	OFDA, CRS (private funds), CAFOD*
Beneficiaries	19,279 direct, more than 96,000 indirect
Affected Areas	13 IDP camps in the Port-au-Prince Metro Area, 5 orphanages, 4 Neighborhoods (Mais Gate, Carrefour, Christ Roi, Petionville and Solino, & Batimat T-Shelter Prefabrication Yard, Warehousing operations)

Source: CRS

*CAFOD = Catholic Agency for Overseas Development.

Mercy Corps. In an initial post-earthquake assessment, the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) estimated 114,000 IDPs were living in Center Department. All officials, organizations, and community members interviewed by Mercy Corps stated that each major aftershock contributed to migration surges out of Port-au-Prince.

Mercy Corps developed a response strategy aimed at supporting families hosting displaced populations that had fled Port-au-Prince. With US\$7,542,904 funding from the Office of US Foreign Disaster Assistance (OFDA),¹⁹⁹ Mercy Corps implemented "Emergency Support to Households Hosting Earthquake-Displaced People in Center Department." This program, started March 15, 2010, provided a one-time

199 USAID, 2010, *USAID OFDA Haiti Earthquake Fact Sheet 8-27-10*.

unconditional cash transfer of 5,000 HTG to 7,700 host families for sheltering earthquake-displaced people. Additionally, this response provided short-term employment to 20,000 people via CFW projects. Each beneficiary performed 30 days of paid labor on projects that responded to the priorities of local government and communities, or contributed to the future development of sustainable livelihoods, such as improving local road conditions and drainage.

Given the dearth of income generating opportunities in the areas of Hinche and Mirebalais, the interest in CFW exceeded the resources available through the program. Mercy Corps used a combination of three approaches to address this issue:²⁰⁰

- Worked with local government authorities to define, select and target communities where all families interested in CFW could be engaged through this program.
- Prioritized IDPs.
- Coordinated with other agencies implementing CFW in target areas to share information about selection criteria and maximize coverage of identified beneficiaries.

Mercy Corps also carried out a CFW program in Port-au-Prince with funding from various donors, including the American Red Cross (ARC). With a budget approaching US\$1.3 million, this program reached 8,458 beneficiary households. The ARC is also known to have conducted large scale cash transfers as part of their earthquake response both directly through their own programs, and indirectly with partner organizations.

Although Mercy Corps conducted the majority of cash transfers using microfinance institutions, remittance agents, and local banks, it also used mobile transfers. Mercy Corps was the first NGO to experiment with mobile transfers in their OFDA-funded CFW program, cash grants in Mirebalais, and later its food voucher program in Saint Marc.²⁰¹ Out of 14 humanitarian mobile transfer programs worldwide,²⁰² six were taking place in Haiti by 2011.

ACDI/VOCA. ACDI/VOCA is currently implementing a USAID-funded EFSP program that will run for the first six months of 2013. It includes a CFW component and is in response to the impact of Hurricane Sandy. ACDI/VOCA plans to reach approximately 6,876 vulnerable emergency-affected households (or 34,380 people) in Grand Gosier, Anse à Pitres, Côtes-de-Fer, Baint, La Vallée, Belle Anse, and Thiotte through CFW activities.²⁰³ ACDI/VOCA follows the Haitian government established wage of 200 HTG per day for CFW projects, with groups working up to 24 days per month to receive the equivalent of a monthly wage. Additional activities include agriculture production support interventions through the purchase and distribution of 20 MT of maize seed. Based on ACDI/VOCA's calculation, the proposed purchase of maize

200 Mercy Corps Field Interview, Port-au-Prince, January 2013.

201 Mercy Corps Field Interview, Port-au-Prince, January 2013.

202 Dalberg (2012) Plugging Into Mobile Money Platforms

203 USAID, 2013, *USAID FFP EFSP Haiti Summary*. And ACDI/VOCA Field Interview, Jacmel, January 2013.

seeds will be sufficient for planting approximately 777 hectares (ha), which is about 0.17 ha per beneficiary household. Fifty Ministry of Health staff, and 2,000 households (10,000 beneficiaries) will receive cholera prevention support interventions.²⁰⁴

ACF. Action Against Hunger (ACF, *Action Contre la Faim*) implemented a US\$3.6 million CFW program from August 2011-December 2012 in response to an extended drought in early 2011 in Artibonite Department. The program targeted 36,384 beneficiaries (6,064 workers and their families). The payment for each CFW rotation took place within one week after the completion of a 24-day rotation with a daily wage of 200 HTG.²⁰⁵

Other NGOs. In June 2010, USAID and the Bill and Melinda Gates Foundation established a Challenge Fund Competition aimed at encouraging the launch of mobile money services in Haiti to “expedite the delivery of cash assistance to victims of the country’s devastating earthquake by humanitarian agencies.”²⁰⁶

Help Age International designed an unconditional mobile cash transfer program exclusively targeted at around 7,000 elderly beneficiaries with limited literacy and numeracy skills. This program is notable in that it was one of the first large-scale programs to use mobile money transfers that targeted the elderly and illiterate (beneficiaries usually seen as not able to easily adopt new technology).

GoH. The GoH recently launched its first national social safety net program, Dear Mother (*Ti Manman Cheri*), that provides a monthly stipend for six months to mothers who keep their children enrolled at a public school. The Economic and Social Assistance Fund (FAES, *Fond d'Assistance Économique et Social*), under the Ministry of Finance, manages the project, which received US\$15 million from PetroCaribe (Government of Venezuela) for September 2012-13 to target 100,000 beneficiaries per month. Ultimately, the GoH hopes to fund the program with taxes based on a model similar to *Lekol Timoun Yo* – a national school fee waiving program targeting 1.5 million children in 11,100 schools financed by taxes on international phone calls and remittances. Under *Lekol Timoun Yo*, 903,000 children received free tuition for the 2011-12 school year.

Ti Manman Cheri uses the *Digicel Tcho Tcho* mobile (TTM) service to send monthly mobile transfers to mothers amounting to 400 HTG (US\$10) for one child at school, 600 HTG (US\$15) for two children, and 800 HTG (US\$20) for three or more enrolled children. The program verifies school attendance every six months with the school principal for the beneficiaries to receive continued assistance. The microfinance institution *Fonkoze* offers the cash out services. As of late January 2013, the program has

204 ACDI/VOCA Field Interview, Jacmel, January 2013.

205 USAID, 2013, *USAID FFP EFSP Haiti Summary*.

206 <http://www.gatesfoundation.org/press-releases/Pages/building-assets-with-mobile-money-service-in-haiti-100608.aspx>

disbursed 21,940,000 HTG to a total of 29,000 mothers, including about 10,000 who have received up to three payments already. *Ti Manman Cheri* is the largest conditional cash transfer in the country at present, and expects to increase its beneficiary numbers later in the following months.

Ede Pèp, a national umbrella for social transfer programs was launched in October 2012, and it encompasses *Ti Manman Cheri* and other forthcoming cash transfer programs.

7.3.2 Beneficiary Preferences

WFP/Haiti's Emergency Operation program found that earthquake-affected urban areas preferred cash, but the population in peri-urban and rural areas with limited market supply to meet demand prefer a mix of cash and food. More remote rural areas prefer food only.

7.3.3 Program Results and Lessons Learned

These program experiences show that agencies were able to deliver large-scale programs both in terms of beneficiaries reached but also total amount of funds disbursed. CFW activities were designed to prioritize the employment of women, elderly, and disabled people, and support IDPs (and families taking them in) outside of Port-au-Prince. The introduction of mobile transfers in these activities indicate an innovative approach to reach beneficiaries.

However, there are challenges to a mobile money program. The *Ti Manman Cheri* program serves as an example to highlight some of these obstacles. First, although beneficiary numbers are growing, issues have been reported with regards to beneficiary familiarity with the mobile money service. In many instances, when registering for *Ti Manman Cheri*, mothers failed to provide the phone number they regularly use and thus did not receive the confirmation text messages indicating a successful transfer. Consequently, they have cashed out their transfer late in the month, often with much difficulty. Even though the management of *Ti Manman Cheri* sends additional staff to the *Fonkoze* branches at the time of monthly transfer, these *Ti Manman Cheri* surge employees may not arrive on time and also may not coordinate efficiently with *Fonkoze* staff.²⁰⁷ Therefore, beneficiaries can experience difficulty cashing out.

An inherent challenge of mobile money is the limitations of the cell signal, which can be very weak in remote rural areas (e.g., Grand Anse Department) where the poorest segments of the population typically live. In urban areas, *Ti Manman Cheri* endeavors to target those most in need. UN Development Programme (UNDP) has been tasked with conducting the monitoring and evaluation of the program.

7.4 INVENTORY OF VOUCHER PROGRAMS

A number of voucher programs for food and non-food items (NFI)s have been and are still currently being implemented throughout Haiti. Since many of the programs use mobile technology, readers may wish to refer to the following table of mobile money terms.

Table 30. Mobile Money Terms

Term	Description
USSD (Unstructured Supplementary Service Data)	USSD is a protocol used by the Global System for Mobile Communication (GSM) cellular telephones to communicate with the service provider's computers. Unlike Short Message Service (SMS) messages, USSD messages create a real-time connection during a USSD session. The connection remains open, allowing a two-way exchange of a sequence of data. This makes USSD more responsive than services that use SMS.
KYC (Know Your Customer)	KYC refers to the minimum requirements for customer/agent identification for funds transfers. This is particularly associated with concerns over anti-money laundering and combating the financing of terrorism.
Mobile Wallet	An electronic wallet where electronic value (e-money) can be stored and accessed by mobile phone.
Mini-Wallet	A low-value mobile wallet. In Haiti, the Central Bank Directive allows for a low-value (max 4,000 HTG (US\$100) at any one time) mobile wallet to be activated on the phone. This does not require the user to provide additional information to that beyond what is required to acquire a SIM Card.
Full-Wallet	A larger value mobile wallet. In Haiti, the Central Bank Directive allows for a mobile wallet up to a maximum value of 10,000 HTG (US\$250) at any one time after signing a subscription contract and, providing a government issued ID and proof of address.
Cash-in	The action of depositing money into a mobile wallet.
Cash-out	The action of withdrawing money from a mobile wallet.
Merchant payment	The ability to use a mobile wallet to purchase commodities from an affiliated vendor.
Tcho Tcho Mobile (TTM)	The mobile money service offered by Digicel and Scotia Bank.
T-Cash	The mobile money service offered by Voila and Unibank.
SMS (Short Message Service)	SMS is a text messaging service of up to 160 characters on a mobile phone based on standard communications protocols defined as part of the GSM standards.
SIM (Subscriber Identity Module) card	A card on which an integrated circuit stores information to identify and authenticate subscribers using mobile telephone devices.

Source: USAID-BEST.

207 *Fonkoze and Ti Manman Cheri* field interviews, Port-au-Prince, January 2013.

7.4.1 Program Details of NFI Voucher Programs

Mercy Corps. Shortly after the earthquake, from July 2010-June 2011, Mercy Corps received US\$4.85 million from ARC to implement a market-supportive, community-led project that would provide NFIs, including shelter and livelihood inputs, to ease overcrowding and reduce vulnerability of 10,000 earthquake-affected households in the Artibonite and Central Plateau Departments.²⁰⁸ Mercy Corps gave beneficiaries one-off vouchers valued at US\$225 to be exchanged for prioritized goods during organized fair days. Fair participants were targeted with awareness-raising initiatives and received training on safe construction and repair techniques in a four-day workshop. Recipients used the vouchers accordingly:²⁰⁹

- 10,298 recipients redeemed vouchers for NFIs, shelter items, hygiene kits, and school fees.
- 5,002 recipients redeemed vouchers for animals, agricultural inputs, food processing items, and school fees.

An estimated 22,766 fair participants were targeted with awareness-raising initiatives, and 81 local builders and carpenters were trained on safe construction and repair techniques, during 4-day workshops delivered by Mercy Corps' partner Build Change.

Out of these 10,000 households who used paper vouchers, 983 beneficiaries and 27 vendors experienced the voucher fairs using mobile money. They conducted 4,223 transactions worth approximately US\$223,000.

UNDP. From November 2011-December 2012, UNDP implemented a US\$3 million mobile voucher program for the procurement of construction materials.²¹⁰ The program CARMEN (*Centre d'Appui pour le Renforcement des Maisons Endommagées*) supported quality housing self-repairs in four quarters of Port-au-Prince (Delmas 75, Carrefour Feuille, Canape Vert, Fort National) and in Leogane. Five repair centers were created and the Ministry of Public Works in partnership with private voluntary organizations (PVO)s conducted trainings for engineers who would visit the houses to estimate damages and draw up a 'repair plan.' The program targeted female heads of vulnerable households with two transfers of US\$250 each to make purchases at 20 participating hardware stores. Beneficiaries were trained to recognize the type of material to buy for repairs and how to recognize good repairs on a house.

World Vision utilized software called Last Mile Mobile Solution as an in-house beneficiary data collection tool; the software provides digital data to georeference beneficiaries and house repair information. World Vision and UNDP then worked in partnership to register beneficiaries with this software by issuing magnetic identification cards for each beneficiary. The program provided beneficiaries and vendors with Digicel SIM cards and phones.

208 Mercy Corps, 2011, *Mercy Corps ARC Final Project Report*.

209 Mercy Corps, 2011, *Mercy Corps ARC Final Project Report*.

210 UNDP, 2012, *UNDP Lessons Learned Cash Transfers Haiti*.

IDB. The IDB runs a US\$30 million Natural Disaster Mitigation Program in Priority Watersheds that covers 162,500 ha and aims to benefit 360,000 people in the Grande Rivière du Nord, Ravine du Sud, and Cavaillon watersheds through improved agricultural practices.²¹¹ As a component of this program, the IDB²¹² launched paper-based agricultural input vouchers. US\$11.3 million is allocated for financial support to eligible legally recognized producer groups or independent farmers in the most vulnerable parts of the watersheds who agree to adopt erosion control farming practices from a menu of technological options. All participating farmers and suppliers in the area are registered and farmers are issued vouchers to buy input or extension services from a pre-defined list. For each technology, the value of the program-financed support includes the cost of inputs, labor, transport, and technical assistance. The financial support consists of a fixed sum for each eligible technology. Farmers are required to make a request for assistance to the local Ministry of Agriculture office. Once approved, the farmers receive a secured voucher redeemable at an approved supplier, who will in turn receive a cash or check payment from a participating financial institution. The program is conducted in collaboration with the Ministry of Agriculture and in partnership with an Italian NGO, AVSI (*Associazione Volontari per il Servizio Internazionale*).

7.4.2 Program Details of Food Voucher Programs

USAID EFSP Voucher Grants.²¹³ The EFSP grants have provided more than US\$70 million in cash and food assistance to over 355,000 beneficiaries since the earthquake. EFSP grants were awarded to WFP, Mercy Corps, CRS, Action Against Hunger/ACF International, CARE, WV, and ACDI/VOCA. Of these EFSP grants, only Mercy Corps, CRS, CARE, and WV have voucher components. Details of each of these awards follows.

Mercy Corps, July 2010-September 2011. Mercy Corps' *Kenbe-la* (Creole for "Hang in There") program focused on 100,000 internally displaced households and host households in Artibonite and Central Plateau Departments. With US\$12.5 million in funding, *Kenbe-la* provided vouchers redeemable for basic food commodities at local registered vendors using an open market approach. This food voucher program provided nine months of food distributions to allow adequate time for participating households to transition into different livelihoods or find employment in their new communities.

The program used a mix of paper and electronic vouchers. In Saint Marc, 7,726 beneficiaries received mobile vouchers valid for a month using the T-Cash service of former mobile operator Voila,²¹⁴ offered in partnership with Unibank. Beneficiaries received electronic transfers straight into their mobile phone and proceeded to a two-way PIN authenticated purchase

211 IDB, 2013, *IDB NDMPR in Priority Watersheds*.

212 Interview with staff in Port-au-Prince, IDB (2011) Haiti. Proposal for a non-reimbursable financing for the project "Technology Transfer to Small Farmers".

213 USAID, 2013, USAID FFP EFSP Haiti Summary.

214 Digicel purchased Voila in March 2012.

process with vendors in real time, where the beneficiary receives a transaction code on their phone which they must communicate to the vendor for input on the vendor's phone to complete the transaction.

CRS, September 2011-October 2012. CRS provided short-term access to essential food items for vital household needs through their US\$4 million Grande Anse Relief and Recovery Program (GRRP). The GRRP strengthened the immediate food security of 6,995 affected households (approximately 41,970 individuals) in the communes of Abricots, Bonbons, and Jérémie in Grand Anse through closed food vouchers. CRS initiated the program in response to Hurricane Tomas, a cholera epidemic, and an exceptionally long dry season in 2011 that negatively affected agriculture production. Beneficiary households received voucher payments worth US\$50 per month for a period of six consecutive months. The commodity basket included rice, beans, corn, oil, banana, yam, manioc, spaghetti, and breadfruit.

The program used a combination of paper and electronic food vouchers. For the paper voucher, beneficiaries were issued food vouchers on a specific market day and immediately proceeded to make food purchases with the vendors present at the voucher fair. In the electronic voucher program, CRS partnered with Digicel to provide a scratch card with a program identification serial number and a PIN number to 2,700 beneficiaries in urban Jérémie. After activating this card, participants were given one month to make selected purchases at registered vendors. The vendor would enter the beneficiary identification number and the amount of the sale on the vendor's mobile phone provided by the program, which the beneficiary authenticated by adding their PIN (see Table 3 below for details).

CARE, October 2011-December 2012. CARE, under the *Kore L'Avni Nou* food voucher program, covers a greater number of communes than CRS. With a budget of US\$6 million, CARE distributed electronic food vouchers worth US\$50 to 12,000 needy households (72,000 individuals), on a monthly basis over a six-month distribution period in the communes of Moron, Chambellan, Anse d'Hainault, Dame Marie, Des Irois, Corail, Roseaux, Beaumont, and Pestel in the Grand Anse Department. The commodity basket included rice, beans, corn, and oil. In response to the impact of Hurricane Sandy, the program received a cost extension of US\$2.5 million until the end of August 2013 to target an additional 5,500 households with electronic food vouchers.

The program was designed entirely using electronic vouchers based on the same design as the program for CRS's electronic voucher system, and also in partnership with Digicel (see Table 3 below for details).

World Vision (WV), November 2012-July 2013. In this on-going program, WV seeks to strengthen the immediate food security of 4,700 affected households (approximately 23,500 individuals) suffering from the shocks of protracted drought and Hurricanes Isaac/Sandy. With a budget of US\$2.5 million, WV intends to

provide six months of closed food vouchers to targeted vulnerable households on the Isle de La Gonâve. Female- or elderly-headed households prioritized for program participation rely exclusively on agriculture and livestock for their livelihood, but are not directly assisted by the current Multi-Year Assistance (MYAP) program. The program also targets those who have food stocks that meet less than 40 percent of need through the 2012 harvest. Beneficiary households receive a voucher for approximately 2,000 HTG (US\$50) per month. This amount is enough for a household of five to cover approximately 42 percent of their daily caloric needs. Products redeemable with the food voucher include: rice, beans, maize, peas, eggs, dairy, meats, spaghetti, yam, manioc, fruits and vegetables, and oil.

Other Donor-Funded Voucher Grants. ACF's Fresh and Staple Food Vouchers Program targeted 4,800 households in three districts of Port-au-Prince: Solino, Carrefour Feuille, and Canapé Vert from 2011-12. The program was funded by SIDA/ECHO and households received paper vouchers for fresh foods, staple foods, and energy use. Sogebank's Sogexpress services were used to cash out the vouchers.

The table on the next page compares the major paper and electronic food vouchers implemented in Haiti since the earthquake.

7.4.3 GoH Initiatives

On January 24, 2012, the Office of the First Lady launched the Down with Hunger (*Aba Grangou*)²¹⁵ strategy to halve the number of those who suffer from hunger by 2016 and eradicate hunger in Haiti by 2025. *Aba Grangou* is a strategic framework, under which 21 government programs are organized with the aim of increasing access to food for the most vulnerable, supporting local production, and improving access to basic services through the World Bank-sponsored program, Family Support (*Kore Fanmi*).

Aba Grangou will also play an advisory role to the Ministry of Social Affairs and Labor in its upcoming collaboration with USAID/FFP in the context of the new Title II development food assistance program. In spite of reporting to the national Commission for the Fight Against Hunger and Malnutrition, of which the First Lady is the honorary president, *Aba Grangou* receives its annual operational budget of US\$1 million per year for 2012-14 from the Ministry of Economy and Finance.

Kore Fanmi implements programs under *Aba Grangou* with funding from the World Bank and UNICEF and support from the GoH to improving people's access to basic services and strengthen decentralized bodies at the communal level. The program seeks to:

- Produce maps that provide an inventory of services on offer to the population in a given geographical area.

²¹⁵ *Aba Grangou*, 2012, *Aba Grangou Conceptual Note on Hunger, Malnutrition*.

Table 31. Comparison of Major Food Voucher Programs in Haiti

	Mercy Corps*	CARE/CRS*	ACF**
Dates	July 2010 – Sept 2011	Sept 2011 – Dec 2012	April 2011-12
Program name	“Kenbe La”	GRRP	Fresh and Staple Food Vouchers Program
Location	Lower Artibonite	Grande Anse	Port-au-Prince
Number of HH	7,726 out of 20,000	12,000 (CARE) + 2,700 mobile (CRS) out of 7,000 paper vouchers*	4,800
Voucher Amount	2,000 HTG	2,000 HTG	2,250 HTG (5 staple food vouchers of 200 HTG each, 5 fresh food vouchers of 200 HTG each and one energy voucher of 250 HTG)
Service used	T-Cash (More Magic User Disbursement interface)	TTM (Transversal “Merchant Pro” User Interface)	Paper Vouchers
Security features	PIN Two-way authentication	PIN One-way authentication	Holograms on voucher; sequencing and other anti-counterfeiting measures
Cash out location for Vendors	Unitransfer	Fonkoze	SogeXpress
Principle	Mobile money transfers targeted at food purchase at selected locations.	Electronic Vouchers targeted at food purchase at selected locations	Direct distribution of vouchers targeted at food + energy purchase at selected locations.
Process	Mercy Corps makes a request to load its e-wallet from its bank account at Unibank and disburses e-money to beneficiaries directly online over the More Magic platform. Beneficiaries receive notification of payment by SMS and go make purchases at registered vendors using their phones and confirming the transaction with their PIN. Once purchase is made, the money is instantly transferred to the vendors’ phone.	CARE/CRS register beneficiaries and vendors on “Merchant Pro” thus creating a closed loop system for authorization of payment with a secured PIN number. Beneficiaries make food purchases at registered vendors. Vendors and the Merchant Pro software track the sales. Vendors can later redeem vouchers at a Fonkoze location (after verification by CARE/CRS).	ACF distributes vouchers to beneficiaries who exchange them for food with approved vendor. The vendors cash out the vouchers at SogeXpress.
Beneficiary equipment	Program ID card Mobile phone and SIM card provided by the program	Program ID card Scratch card with PIN	Program ID card
Vendor equipment	Mobile phone and SIM card provided by the program Sales log sheet	Mobile phone and SIM card provided by the program Sales log sheet	Sales log sheet
Financial Settlement	Mobile transfer into mobile wallet (core banking integration)	Bank to bank transfer from Care/CRS to Digicel and then from Digicel to Fonkoze. Cash/Check payment from Fonkoze to vendors No mobile wallet functionality.	Bank to bank transfer from ACF to SogeXpress
Conditionality	Ensured by program training, physical monitoring at vendor location Cash out and peer-to-peer transfer options disabled by service provider (thanks to sequential SIM numbering)	Ensured program training, through a closed loop voucher system and physical monitoring at vendor location	Ensured by program training, and the nature of the voucher
Key differentiating factors	Mobile wallet integration Real-time electronic settlement	Conditional electronic voucher system only redeemable at selected location Modeled on a paper voucher system with e-verification Delayed manual settlement	Tradition paper-based voucher system Modeled on an open market voucher system without verification post-voucher distribution Delayed manual settlement
Key benefits	True mobile transfer Potential cost and efficiency savings No need for monthly physical distribution of vouchers Real time settlement	Electronic triangulation No need for monthly physical distribution of vouchers	Different denomination vouchers makes it easier to spread purchases Can include small informal vendors without a patente (who sell fresh produce) Conditional purchase
Key drawbacks	Almost impossible to disable cash-out and Person-2-Person options if beneficiaries use their own SIM. Excludes small informal vendors without a patente Conditional purchase of selected food items not guaranteed	Reconciliation of payments and data management Excluded small informal vendors without a patente, but did not necessarily have to, given the fact that there was no integration with TTM Conditional purchase of selected food items not guaranteed	No integration of electronic technology Time-consuming, cumbersome process

Source: Mercy Corps, CARE, CRS, ACF.

*Considering e-voucher systems only, note CRS's program had 2,700 beneficiaries use mobile money and 4,300 use paper vouchers for the 7,000 total beneficiaries.

** Program was funded by SIDA/ECHO.

- Conduct socio-economic surveys of households and collect information necessary to determine its level of vulnerability and draw up with each household a “development plan.”
- Provide assistance to families through a general community worker (ACP, *Agent Communautaire Polyvalent*) in charge of the well-being of a set number of households. For example, ACPs refer families to existing government services and educate them about better health practices.
- Manage coordination at the communal level to link beneficiaries with service providers.

7.4.4 Beneficiary Preferences

Beneficiaries tend to prefer food vouchers over direct food distribution. This choice may be due to the logistics of food voucher programs that provide more flexibility as to when and (sometimes) where to make food purchases. Closed fairs allow beneficiaries to interact with vendors as they would do on a market day or in an open market where beneficiaries are required to go to vendor locations.

The practice of beneficiaries sharing food as part of voucher programs is widespread, and similar to reported sharing of direct distribution rations under current Title II MYAP programming. In the case of the ACF Fresh and Staple Food Vouchers program, beneficiaries also shared vouchers as vendors did not check identification at the time of purchase and the value of the vouchers was a relatively small denomination of 200 HTG.

In general, beneficiaries reported high levels of satisfaction in all the programs discussed above. Beneficiary familiarity with mobile money and electronic vouchers continues to pose challenges. During USAID-BEST field interviews, organizations noted that new technologies require significant investment in consumer education and beneficiary training to meet program objectives. Negative experiences with vendors or agents can affect beneficiary perceptions of the service. Some women stated feeling insecure using mobile money because of rude agents who got hold of their phone to carry out the cash-out transaction on their behalf. Additionally, some farmers’ information may not be recorded properly during the registration process so they cannot redeem their vouchers.

7.4.5 Program Results and Lessons Learned

Paper vouchers, though more time and resource consuming, offer more flexibility in program design and directing beneficiaries to specific foodstuffs. For example, ACF was able to conduct sensitization sessions on dietary diversification, hygiene and care practices (breastfeeding and weaning), and culinary demonstrations during the paper voucher distribution process.

For both electronic and paper vouchers, despite some glitches, such as slow program start and poor program communication in the community, the programs have been highly successful. There has been limited program corruption, and beneficiaries

and vendors report satisfaction. NGOs attribute this success partially to the controlled program environment, i.e., set geographies, limited number of beneficiaries, etc. Taking the electronic voucher programming on a national scale would present difficulties given the level of monitoring required with vendors and technology providers.

Another potential obstacle for voucher programs is moving cash around in Haiti. According to the major cash out facilitator to date, *Fonkoze*, the process of requesting additional liquidity from the Central Bank and then transporting the money by car to the requested locations is complex and at times unsafe. For the GRRP, it took *Fonkoze* two to three days to move the required levels of cash to Jérémie every month. Following a robbery incident in October 2012, *Fonkoze* has reevaluated fund transfer strategies and has implemented higher security measures, but at a higher cost to programs.

The cost of providing electronic transfer options also poses an issue. One NGO stated paying as much as 10 percent of the value of the voucher transfer to the service provider. This amount may be due to the number of intermediaries involved in the recent food voucher programs. For instance, in implementing the *Kore L’Avni Nou* food voucher program and the GRRP, respectively, CARE and CRS entered in a contract with Digicel, which relies on a partnership with Transversal to develop the voucher management software Merchant Pro that generates the batch vouchers. Digicel also partnered with *Fonkoze* to support the redemption of the vouchers by the vendors. Initially, it was expected that voucher payment could be made directly to the vendor using the *TTM* wallet but the feature could not be activated by Digicel because Digicel could not implement the necessary systems integration into the Merchant Pro software.

Although beneficiaries certainly take advantage of such programs to improve their nutritional intake and divert income to other uses (especially school fees and debt repayment), PVOs report that vendors also benefit from voucher programs. Some vendors are reportedly able to generate months of revenue from additional sales provided by participation in the program.²¹⁶

7.5 INVENTORY OF ELECTRONIC TRANSFER OPTIONS

Mobile transfers, electronic vouchers using Unstructured Supplementary Service Data (USSD) and the internet, and prepaid debit cards are all viable options for the future. CRS completed an evaluation of these various mobile transfer possibilities in 2012 before the sale of Voilà-Comcel to Digicel. Given this acquisition by Digicel and the rapidly changing environment for technology, this assessment from CRS is potentially out of date, but it still provides a context for understanding the following analysis of electronic voucher usage (see document in Annex 4).

²¹⁶ ACF, 2010, ACF Capitalization Document.

Digicel.²¹⁷ Digicel is the largest mobile operator in Haiti with well above 90 percent market share. Since Digicel's acquisition of Voilà-Comcel in March 2012, TTM remains the only mobile money service available in Haiti. TTM allows users to effectively use their mobile phone as a debit card at accepting merchants, fund transfer companies, and banks.

Current directives on branchless banking allow for a tiered Know Your Customer (KYC)²¹⁸ requirement. This tiered KYC involves a "mini mobile wallet" which users can activate directly on their phone and a "full mobile wallet" for which users need to sign up and provide additional information.

Users can activate to a mini-mobile wallet by keying the short code *202* on their Digicel phone. After activation of the mobile wallet, the Digicel call center verifies the subscriber's name and date of birth by getting in touch with the user to match the information against the client database. Importantly, users in Haiti must produce a photo identification to acquire a SIM card. The mini-mobile wallet can store up to 4,000 HTG (US\$100) at any one time. This feature is particularly adapted to humanitarian programs whose many beneficiaries had lost their identification during the earthquake but did possess a SIM card. The amount of US\$100 also covers the range of humanitarian programs which often averaged transfers of US\$50 a month.

Subscribers willing to store a higher value can request a full wallet capped at 10,000 HTG (US\$250). They then need to fill a form at a Digicel branch and provide a GoH-approved ID. Digicel is currently in talks with the Haiti Central Bank to review these limits higher.

Digicel is currently migrating to a new technology partner, and expects to complete this move within six to nine months from January 2013. This transition phase presents the opportunity to add additional services such as a closed-loop voucher system, which would function the same way as a gift card with no cash-out option and specified vendors for purchases. The service redesign could permit informal vendors on the ecosystem, for which proposed KYC requirements include identification, address but no fixed location, and a 50,000 HTG wallet limit. This differs from the current denomination of "agents", which need to have a government issued ID, and a *patente* (fiscal license) as well as fixed physical location to be put on the systems.

When TTM fully migrates to a new technology (expected sometime between July-October 2013), Digicel plans to deploy 1,000 TTM agents throughout the country to support cash-in and cash-out services, and potentially an unlimited number of vendors accepting TTM.²¹⁹

217 Key informant, Port-au-Prince, January 2013.

218 KYC refers to the minimum requirements for customer identification for funds transfers. This is particularly associated with concerns over anti-money laundering (AML) and combating the financing of terrorism (CFT).

219 Key informant, Port-au-Prince, January 2013.

Boom Financial.²²⁰ Boom offers a cross border mobile banking service for a fixed monthly fee. An account holder at Self Help Credit Union in the US issues a transfer order from his/her mobile phone. The recipient in Haiti receives an SMS notifying him/her of the transfer. The transfer information is simultaneously relayed to a Digicel call center, which contacts the recipient in Haiti to invite him/her to open an account at Le Levier Credit Union (if the recipient does not already have one), where the recipient has the option of cashing out the full amount of the transfer or leaving part of it in the account at Le Levier. Both sender and recipient accounts are held in US\$. The system functions as a mobile-enabled international bank-to-bank transfer. In time, it is anticipated that the service will be interoperable with TTM, meaning remittances can be automatically transferred to the mobile wallet. KYC requirements include SIM card registration, a government issued ID card, and the signature of a contract to open the account at Le Levier. The service is expected to launch April 1, 2013.

Transversal.²²¹ Transversal is a Haitian software company which began operations in 2005. It designed the Merchant Pro software utilized by the recent voucher programs of CARE, CRS and UNDP.

Merchant Pro allows the registration of both beneficiary and vendor information for a voucher program. Vouchers are then created in batch from the beneficiary lists. A confirmation SMS can be sent to beneficiaries if they have access to a phone. Voucher numbers are linked to specific beneficiary IDs, which safeguards against one beneficiary activating another person's voucher. Vouchers can also be linked to specific commodities. Agencies can draw daily, weekly, fortnightly, or monthly reports that show how much is due to each vendor and authorize payment processing. Merchant Pro has the inherent capability of depositing payments straight into a vendor's bank account. However, current Haitian regulations do not permit this action; only banks are authorized to make direct transfers into bank accounts in Haiti.

eVoucher via USSD. In the case of the CARE and CRS programs, the system used USSD commands to authenticate the transactions. Beneficiaries entered their PIN number on a vendor's basic phone followed by "#" and "SEND."

eVoucher via Internet. In the case of the UNDP CARMEN project, smart phones were loaned to vendors who used mobile Merchant Pro application which allowed bar code scanning. This option makes it possible not only to direct beneficiaries to specific vendors on the system but also limits purchases to a specific basket of pre-vetted goods.

To date, Transversal has been offering their services through Digicel. However, the internet options for e-vouchers on smart phones are open to all carriers.

Sogebank. Created in 1985, Sogebank is one of the largest

220 Key informant, Port-au-Prince, January 2013

221 Key informant, Port-au-Prince, January 2013.

banks in Haiti. Sogebank is reportedly planning to launch a prepaid debit card product aimed at low-balance clients within a 9 to 12 month timeframe from January 2013. Debit cards offer coding options that can link funds to specific vendors and specific bar-coded products.

The successful expansion of this service could be contingent upon the deployment of additional Automated Teller Machines outside of Port-au-Prince and Point of Sale devices that can read the cards at vendor locations.

7.6 MARKET SUPPLY

Staple foods are generally readily available in local markets (both formal and informal) in urban centers, and markets appears to function effectively. Increase in demand due to a food voucher program may stimulate local production, but this effect will depend on the commodity and seasonal availability. Local commodities are available in relatively large quantities during harvest season, but availability decreases approaching planting season. However, consumers could diversify the commodities they purchase based on their availability.

Rice and Maize. Local rice can be included in a basket of local goods tied to vouchers, but the availability of imported rice is much greater and imported rice is generally less expensive. USAID should consider targeting local maize for inclusion in a closed voucher. Maize is a less expensive source of calories than rice, and there is greater yearly availability of maize compared to local rice in most regions. Even in the absence of a voucher system, consumers prefer local maize over imported maize products because of costs. If maize is part of the basket in a voucher system, increased demand may cause prices for local maize grain, maize meal, and maize flour to increase. Such an outcome could negatively affect non-beneficiaries who rely mainly on the market for supply during lean season.

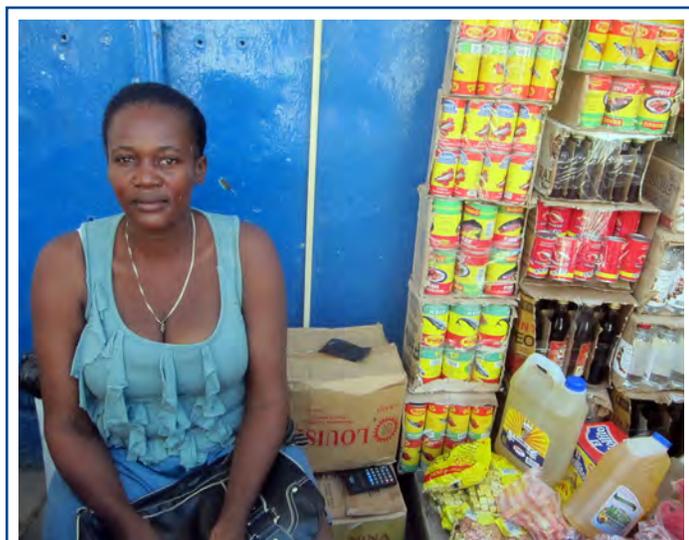


Photo by Fintrac Inc.

A vendor sells a variety of products, including milk, canned fish, and edible oils at a local market. Port-de-Paix, Haiti, January 2013.

Beans/Peas. Local beans can and should be targeted for inclusion in the food voucher basket of commodities because they have high protein in a diet that often lacks this element, particularly for children and adolescents. Moreover, local beans are more common than imported beans, and the market for local beans is competitive.

Pigeon peas and cowpeas could also be included for vouchers as an even cheaper source of protein, but would only be available during the first six months of the year. One further, and important, overarching issue to consider is whether the vouchers will allow beneficiaries to buy local goods available in both formal and informal markets. Specifically, petty retailers dominate the retail markets and they may not be able to accept vouchers if the process of redeeming vouchers is too complicated.

7.7 RECOMMENDATIONS FOR TITLE II FOOD VOUCHER PROGRAM DESIGN

Since the January 2010 earthquake, a high number of beneficiaries have received food assistance through voucher programs. USAID/FFP alone funded a total of US\$22.5 million for such programs that supported 179,000 beneficiaries. Vouchers remain one of the most effective market-based options for providing food assistance to large beneficiary populations. Beneficiaries cite convenience, choice, and empowerment as the key positive benefits.

In spite of these successes, a national safety net program implemented entirely through electronic means still faces limitations. The question of accurate beneficiary identification and targeting remains an issue. To implement a large-scale questionnaire and data collection effort after the model of *Kore Fanmi* requires significant resources. The Haitian Institute of Statistics and Information Technology is planning a census for 2013-14, with which the Ministry of Social Affairs and Labor (MAST, *Ministère des Affaires Sociales et du Travail*) is in discussion for the inclusion of socio-economic data and the use of the national identity card as ID locator, in order to collect identifiable information.

Employing new technology requires strong product orientation that is labor intensive and time consuming. Beneficiaries must be adequately familiarized with the technology to use it so they feel empowered rather than frustrated. Many systems and technology development concerns, such as adequate cell signal in remote rural locations, may skew programs away from the most vulnerable if programs only cover those areas that have the capacity for the technology.

Digicel maintains a quasi-monopoly because its costs are lower than smart phones. Vendors therefore continue to use basic phones for their USSD commands over the Digicel network.

In implementing a mobile money system, future Title II awardees, the GoH, and other donors should consider the cost structure of mobile money and assess its effectiveness. The GoH imposes

a 10 percent tax on mobile money transactions, including transfer to beneficiaries, vendor payment, and cash out. NGOs currently pay the cash out fees in the form of a service fee to cash out agents. However, if the voucher system integrates mobile money then vendors will have to pay these fees. Discussion of who will assume responsibility in paying this fee is on-going between Digicel and the GoH.

The mobile money ecosystem needs to be further integrated to 1) allow vendors to buy from their suppliers using mobile money thus reducing cash out pressures on financial institutions acting as agents; and 2) allow informal vendors to participate in the mobile money ecosystem because they sell most locally produced foodstuffs.

A significant quantity of vouchers in a small area with poor market integration could cause price inflation and market volatility. If the intent of the voucher program is to encourage local production, it is essential to time a voucher program to meet seasonal availability. Also, beneficiaries can form the habit of sharing vouchers and all programs report that beneficiaries do share food. A parallel market of voucher trading could develop.

Price competitiveness is another potential problem. For example, when ACF tied its vouchers exclusively to local produce, beneficiaries accessed less quantities of local rice because of its higher cost compared to imported rice. In some cases, attaching local production conditionality to a voucher system may then lead to less calories consumed for beneficiaries.

Future Title II awardees should also consider a few key questions:

Cash or commodity vouchers? A commodity voucher, redeemable for a food equivalent but not a cash value equivalent, would place all price fluctuation burdens on the program but could possibly ensure consistent food rations. If the food vouchers are intended to stimulate local production, the vouchers must be tied to specific foods (in addition to quantities) that are pre-selected during program design and that are available in abundance through local production. (Chapters 4 and 5 provide further details.) Historically, PVOs have utilized cash-based vouchers.

Should cash transfers and food aid be combined? A voucher system designed to support the most vulnerable should be supplemented by direct food distribution in response to shocks/disasters or during the lean season. There is a need to balance this discrepancy between local and national food production deficits and surpluses (depending on harvest/lean seasons) when the implementation of a voucher program is aimed at increasing local production and consumption.

What should the value of transfer be? Most PVOs expressed the desire to match voucher value to household size, but this design could increase the potential for fraud during beneficiary

registration since no means of verification exists. This reiterates the need for the collection of socio-economic and census data on the population, and underscores the value of tying national identification cards to safety net registration.

What should constitute the food basket? As pointed out in the evaluation of the Mercy Corps *Kenbe La* program, rice and oil are commodities that easily exchanged because they are more desired foods. To ensure targeting of the most vulnerable households, less desired but nutritious foods such as tuber and sorghum should also be considered for inclusion within a closed food voucher.

In the new Title II cycle, the Request for Application calls for direct collaboration with MAST. Historically, previous MYAP implementing partners have built working relationships with the Ministry of Health (MSPP, *Ministère de la Santé Publique et de la Population*) and the MARNDR, particularly at departmental and local levels. Therefore, the new Title II awardee will need to devote significant effort to establishing and building an effective working relationship with MAST officials from federal to local levels. The new awardee should also target and coordinate with other relevant government structures and programs, including the FAES, *Aba Grangou*, and the CNSA. This effort will require regular communication with various government bodies of different capacities. Future awardees will benefit from strengthening relationships at all government levels to improve targeting, avoid duplication of food assistance programming, and work toward GoH ownership and program sustainability.



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BEST Project

Bellmon Estimation Studies
for Title II (USAID-BEST)

USAID OFFICE OF FOOD FOR PEACE HAITI USAID-BEST ANALYSIS ANNEXES

MARCH 2013

This report is made possible by the support of the American people through the United States Agency for International Development (USAID). The contents of this report are the sole responsibility of Fintrac Inc. and do not necessarily reflect the views of USAID or the United States government.

PREFACE

The following annexes present essential background information to the full USAID-BEST report, including data and research on the economy, agricultural sector, household consumption and expenditure patterns, and food security. The annexes also contain the USAID-BEST methodologies for determining the impact of monetized and distributed food aid on local markets. Lastly, USAID-BEST provides a list of contacts from the research and field work as well as references cited.

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ANNEX I ECONOMIC OVERVIEW

I.1. GDP AND INFLATION

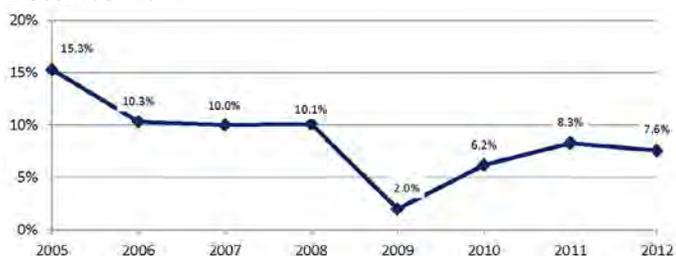
Table I. Haiti: Macroeconomic Overview (million HTG)

Category	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
GDP (constant 1986-87)	13,622	14,014	13,255	13,996	14,391	
GDP (nominal)	250,590	266,559	264,039	297,687	329,032	368,630
GDP Growth (constant, % change over previous year)	0.8	2.9	-5.4	5.6	2.8	6.5

Source: IMF, 2012; IHSI, 2011.

Note: 2009-10 provisional, 2010-11 and 2011-12 estimations, 2012-13 projections.

Figure I. Trends in Inflation Rate, December 2005 to December 2012



Source: IHSI, 2013.

I.2. ECONOMIC LINKAGES/PARTNERSHIPS

Country/Region	Agreement/Treaty	Main Benefits
Multilateral	World Trade Organization (WTO) agreement	All active member benefits
Multilateral	The United Nations (UN) and its Specialized Agencies agreements and treaties	All active member benefits
Multilateral	The International Monetary Fund (IMF) agreements	All active member benefits
Multilateral	The World Bank group (WB) agreements	All active member benefits
US	The U.S. Generalized System of Preference (GSP)	
Item 806.0 and 807/TSUS	Exception from selected custom duties.	
US	The Caribbean Basin Initiative (CBI-II)	Exception from selected custom duties.
US	The Hope II Act	Financing
US	The Help Act	Financing
European Union	Fourth Lomé Convention; The Cotonou Agreement of 2000; The Economic Partnership Agreement (EPA); The Cariforum-EU EPA	Preferential tariff. Allowed entrance to EU duty-free and without restriction.
Caribbean	Caribbean Economic Community (CARICOM)	Free movement of goods, services and production factor.
Caribbean	Caribbean Economic Community (CARICOM)	Harmonized laws and regulations governing economic activities
Caribbean	Association of Caribbean States (ACS)	Consultation, cooperation in trade, transport, tourism and natural disasters.
Caribbean	CARIFORUM plus Dominican Republic	Coordination and monitoring of resources received from the European Development Fund (EDF)
Canada, Argentina, Bahamas, China, Colombia, Denmark, Dominican Republic, Germany, Iceland, Israel, Italy, Japan, and Liberia.	Bilateral trade agreements	Framework agreements under most-favored-nation benefits.

Source: CFI, 2012.

I.3. MAJOR PRODUCTS AND INDUSTRIES

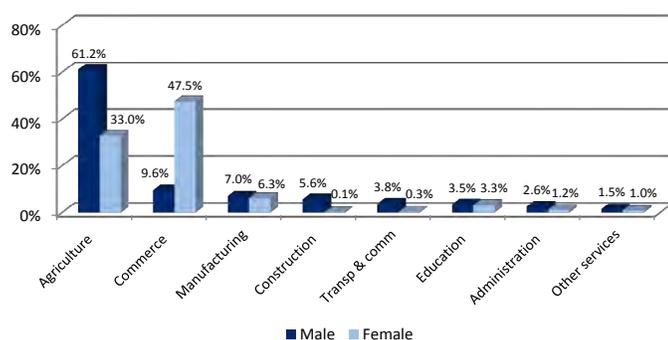
Table 2. GDP by Reported Economic Sector, %

	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Restaurants and Hotel	27.1	28.4	27.9	27.2	26.9	27.1
Agriculture, forestry, animal husbandry and fishing	25.0	22.9	23.5	24.8	23.8	22.6
Other activities	11.9	12.1	11.8	11.6	11.3	11.4
Services	10.7	11.1	10.8	11.6	11.3	11.3
Building and public works	7.6	8.0	8.0	8.8	9.1	9.3
Manufacturing	7.6	7.6	7.6	6.9	7.7	8.0
Communications and Transports	6.7	7.1	7.1	7.3	7.4	7.5
Water and Electricity	0.4	0.4	0.5	0.5	0.6	0.7
Extractive industries	0.1	0.1	0.1	0.1	0.1	0.1

Source: IHSI, 2012.

Note: 2008-09 provisional, 2009-10 and 2010-11 estimations, 2011-12 projections. Columns do not add to 100 percent.

Figure 2. Employment by Industry and Gender, 2009



Source: IHSI, 2009.

I.4. MAJOR SHIFTS IN POLICY, STRUCTURE, AND PERFORMANCE

Table 3. Summary of Main Political, Economic and Social Events from October 2012 to January 2010

Date	Event
October 2012	The government estimates that Hurricane Sandy damaged more than 200,000 homes. More displaced people add to the almost 400,000 people still homeless from the January 2010 earthquake.
June 2012	The parliament approves the new government and Laurent Lamothe becomes prime minister, ending a year-long political deadlock. Before Lamothe, Gary Conille was approved by the parliament, but Conille lasted less than six months. Lamothe announces cracking down on armed members of Haiti's rogue army. Rising crime rates in Port-au-Prince, demonstrations by supporters of former President Aristide, and potential armed military trainings at old army bases increase instability.
October 2011	One year after the world's largest cholera outbreak, it is estimated that the disease has affected over 450,000 Haitians and more than 7,500 people have died since 2010.
March-April 2011	The presidential runoff election occurs peacefully and Michel Martelly becomes the new president.
January 2011	First anniversary of the 2010 earthquake. According to the International Organization for Migration (IOM), more than 600,000 people are still living in displacement camps.
January 2010	Earthquake. According to the Inter-American Development Bank, the total costs of the damages were between \$8 billion and \$14 billion, and the death toll surpassed 250,000 people.

Source: Compiled by USAID-BEST from different news sources (see bibliography).

Table 4. Main Components of GoH Economic and Agricultural Policy

Policy	Main Objective
Budgetary and fiscal	To maintain budgetary and fiscal discipline. The GoH has made important adjustments to control spending and to increase fiscal revenues.
Monetary	To stabilize prices and the exchange rate. By controlling the monetary base, the Central Bank was able to keep the exchange rate more stable. The GoH also has had some control over the inflation rate.
Trade	To liberalize domestic agricultural markets. This policy has resulted in significant import of food items. Although the GoH has distributed low-cost imported fertilizers, this initiative has not improved agricultural productivity and production.
Agriculture	To restructure the Ministry of Agriculture, to favor employment creation in the rural sector, to increase food production self-sufficiency, to increase the monetary value of agricultural exports, and to improve agricultural revenues.

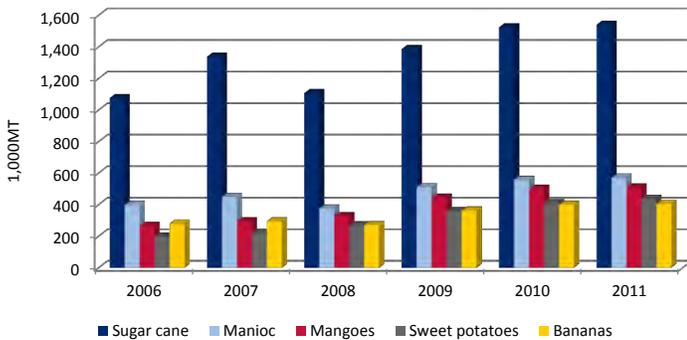
Source: USAID-BEST, 2010 and MARNDR, 2012.

ANNEX 2

AGRICULTURAL SECTOR

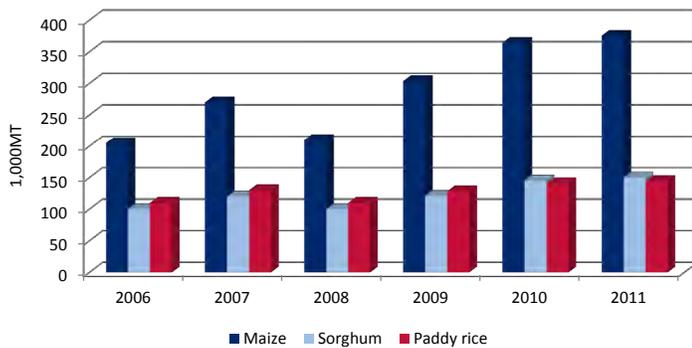
2.1. PRODUCTION BASE AND TRENDS

Figure 3. Main Agricultural Products by Volume (1,000 MT), 2006-11



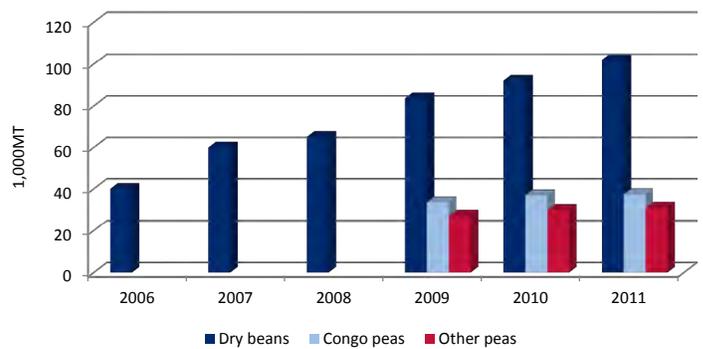
Source: MARNDR, 2012.

Figure 4. Cereal Production (1,000MT), 2006-11



Source: MARNDR, 2012.

Figure 5. Beans and Peas Production (1,000 MT), 2006-11



Source: MARNDR, 2012.

Note: Congo peas and other peas were not reported before 2009.

2.2 SEASONALITY

Table 5. Agricultural Calendar by Department and Agro-Ecological Zone

Department	Agro-ecological zone	Product	First season	First Season	Second Season	Second Season	
			Sowing	Harvest	Sowing	Harvest	
Artibonite	Humid mountain	Dry beans	April	July	December	March	
		Maize	December	April	July	November	
	Morne semi-humid	Maize	April	August			
		Sorghum	April	July	August	November	
	Humid plain	Maize	February	June	July	November	
		Rice	April	August	October	February	
	Dry Plain	Maize	March	July			
		Sorghum	March	June	February	April	
	Irrigation	Maize	April	August			
		Rice	July	October	December	April	
Center	Humid mountain	Dry beans	March	June	August		
		Maize	April-May	July-September	August-September	December-January	
	Morne semi-humid	Congo peas	March-April	December			
		Congo peas	March-April	December			
	Humid plateau	Maize	March-April	June-July			
		Dry beans	November	February			
	Dry plateau	Maize	March	July			
		Rice	April	August	September		
	Dry plain	Congo peas	April-May	December			
		Sorghum	July-April	January-February			
	Irrigation	Congo peas	March-April	December			
		Sorghum	May	September	May	January	
	Grand-Anse	Humid mountain	Dry beans	February	May	July	October
			Maize	February	June		
		Morne semi-humid	Dry beans	February	May	July	October
			Sorghum	February	May		
		Humid plain	Maize	January	April	May	August
			Rice	February	June	July	November
North	Humid mountain/very humid	Sorghum	May	November	August	January	
		Maize	January	April	May	August	
	Semi-humid plain	Sorghum	May	November	August	January	
		Maize	January	April	May	August	
	Dry plain	Sorghum	May	November	August	January	
		Maize	April	August			
North	Humid mountain/very humid	Sorghum	August	November			
		Dry beans	March	June	August	November	
	Morne dry	Maize	March	July	August	December	
		Maize	March	July			
	Morne semi-humid	Maize	March	July			
		Dry beans	January	April			
	Humid plain	Maize	September	January	March	July	
		Rice	April	August	September	January	
	Semi-humid plain	Maize	March	July	August	November-December	
		Sorghum	April	November	August	January	
	Dry plain	Maize	March	July	August	December	
		Dry beans	November	February			
Irrigation	Maize	December	April				
	Rice	February	June				

Department	Agro-ecological zone	Product	First season	First Season	Second Season	Second Season	
			Sowing	Harvest	Sowing	Harvest	
Northeast	Humid mountain	Dry beans	February	May	August	November	
		Maize	February	June	August	December	
		Rice	February	June	July	November	
	Morne semi-humid	Dry beans	February	May	August	November	
		Maize	February	June	August	December	
	Humid plain	Dry beans	November	February			
		Maize	March	July			
		Rice	January	May	June	September	
	Semi-humid plain	Maize	March	July			
		Rice	January	May	June	September	
	Dry plain	Maize	September	February			
		Sorghum	March	January			
Northwest	Humid mountain	Maize	April	July	August	December	
	Humid plain	Dry beans	April	July			
		Sorghum	May	January			
	Semi-humid plain	Maize	April	August			
	Dry plain	Maize	April	August			
		Sorghum	March	January			
	Dry plateau	Maize	April	July	March	May	
		Sorghum	March	January			
	Irrigation	Maize	March	June	July	November	
		Sorghum	February	May	August	November	
West	Humid mountain	Dry beans	February	May	July	October	
		Maize	March	July	August	December	
	Morne semi-humid	Maize	February	June	July	November	
		Humid plain	Maize	March	July	August	December
	Semi-humid plain	Maize	March	July	August	November	
		Sorghum	March	January	July	January	
	Morne dry	Maize	April	August			
		Sorghum	April	January			
	Dry Plain	Dry beans	December	March	July	November	
		Sorghum	April	January	July	January	
		Irrigation	Dry beans	April	July	November	February
			Maize	March	July	August	December
	Rice	May	September				
South	Humid mountain/very humid	Dry beans	February	May	July	September	
		Maize	January	May			
	Humid plain	Dry beans	February	May	August	November	
		Maize	March	July	August	December	
		Congo peas	April	December			
		Rice	April	August			
		Sorghum	May-August	December- January	August- September	December-January	
	Dry plain	Maize	March-April	July-August			
		Sorghum	April-July	January	July	December-January	
	Irrigation	Dry beans	November-December	January-February	January-February	May-June	
		Maize	February-March	April	August	December	
		Rice	February	June	August	December	
	Sorghum	August	November-December				
Southeast	Humid mountain	Dry beans	February	May	July	October	
		Maize	March	July	August	December	
	Morne dry	Maize	March	July	August	December	
		Sorghum	March	January	August	January	
	Humid plain	Dry beans	December	March			

Department	Agro-ecological zone	Product	First season	First Season	Second Season	Second Season
			Sowing	Harvest	Sowing	Harvest
	Maize	February	June	July	November	
	Sorghum	July	January			
Semi-humid plain	Dry beans	December	March			
	Sorghum	July	January			
Irrigation	Dry beans	March	June	August	November	

Source: CNSA, 2013.

2.3. IMPORTS

Table 6. 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: USAID-BEST, 2011.

2.4. EXPORTS

Table 7. Main Agricultural and Food Product Exports (million US\$)

Category	2008	2009	2010	2011
All products	657,509	661,371	695,279	884,091
Agricultural and Food	36,084	36,962	38,923	43,141
Edible fruits	11,937	13,561	10,767	14,932
Fish and crustaceans	5,236	5,406	7,459	11,171
Cocoa and cocoa preparations	8,714	9,051	13,893	7,494
Beverages, spirits and vinegar	3,089	2,328	2,037	3,301
Coffee	3,620	3,184	1,909	2,774
Oil seed	679	1,251	1,246	1,215

Source: ITC, 2013.

2.5. KEY POLICIES AND INITIATIVES

Two structural adjustment programs implemented in 1986 and 1995 have dominated Haiti's economic and agricultural policy. These regulations removed trade barriers, which led to massive imports of agriculture commodities that competed with local agriculture. To remedy this effect, the Government of Haiti unsuccessfully tried to implement other agricultural policies. However, lack of financial resources, and political (e.g., corruption), and economic (e.g., price instabilities) difficulties hindered the implementation of these policies.¹

In November 2012, the Ministry of Agriculture, Natural Resources, and Rural Development (MARNDR, *Ministère de l'Agriculture, des Ressources Naturelles et du Développement Rural*) released the 2012-2015 National Program to Support Agricultural Recovery (*Programme National D'Appui à la Relance Agricole, 2012-2015*),² which has the following main objectives:

- Restructuring the Ministry of Agriculture to handle current challenges by adopting a results-based management that promotes a favorable environment for the development of agricultural services.
- Encouraging the creation of 150,000 jobs in the agricultural sector by supporting agricultural entrepreneurship, particularly among young people.
- Increasing food sufficiency to 60 percent (currently the report suggests that Haiti is able to produce 50 percent of all food consumed in the country).
- Increasing overall agricultural export value by 40 percent from its current value of US\$38.74 million.
- Improving farm income by developing and promoting 60 diversified technologically and economically viable packages that would increase productivity.
- Promoting value-added activities in the agricultural sectors to help develop and sustain agro-industries across the country.
- Reversing land degradation and promoting sustainable natural resource management.

The National Program document details the steps necessary to fund and accomplish the above main objectives.

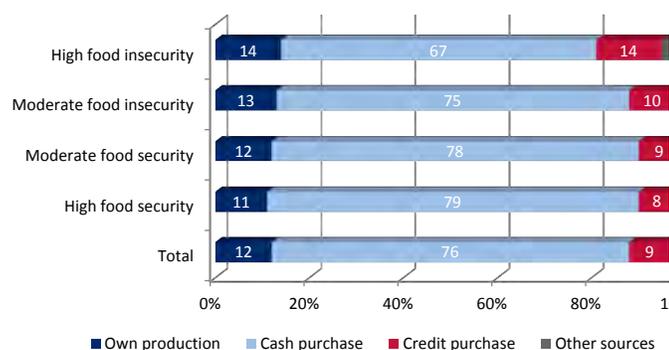
¹ USAID-BEST, December 2011, Haiti USAID-BEST Analysis.

² Ministère de l'Agriculture, Des Ressources Naturelles et du Développement Rural (MARNDR), 2012, *Programme National D'Appui à la Relance Agricole 2012-2015*.

ANNEX 3 HOUSEHOLD CONSUMPTION AND EXPENDITURE PATTERNS

3.1. SOURCES OF FOODS

Figure 6. Sources of Food by Household Food Security Level, %



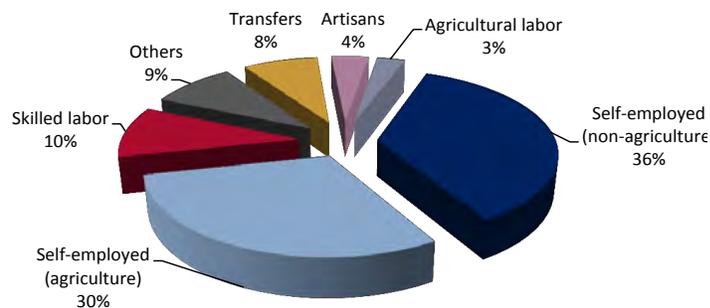
Source: CNSA, 2011.

Most recent changes in food consumption patterns:

1. Reduction in consumption of protein rich foods and/or a shift towards less preferred pulses and substitutes. Average rural and/or urban households currently face increasing prices for protein rich foods such as meat, milk, and beans. Thus, consumption of preferred protein rich food has likely reduced in favor of less costly products such as pigeon peas, cowpeas, and amaranth (now widely grown in irrigated areas because the boiled leaves can substitute for pulses to accompany meals of cereals).
2. Strong increase in rice consumption because of a decrease in consumer price of rice as a result of trade liberalization in Haiti in the mid-1980s. Since then, the relatively low international market price of the product has made rice cheap and widely available.
3. Stronger dependence on street-cooked food vendors in low income urban areas due to living conditions that have made home cooking less convenient. Families live in cramped spaces, have poor availability and quality of water, face high cooking fuel prices, and have less time. In addition, people can now obtain short-term credit from street vendors (one-two weeks usually) which increases food consumption from this source. Street vendors usually sell plates of cereals with a small side of cooked vegetables, "spiced up" with meat for lunch and fried plantain, sweet potato, and breadfruit slices in the evenings. This trend may be one factor causing a large increase in imports of plantain and certain vegetables from the Dominican Republic.

3.2. SOURCES OF INCOME

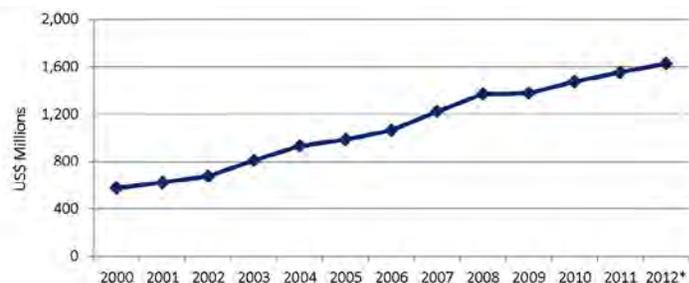
Figure 7. Main Source of Income/Livelihood, 2011



Source: CNSA, 2011.

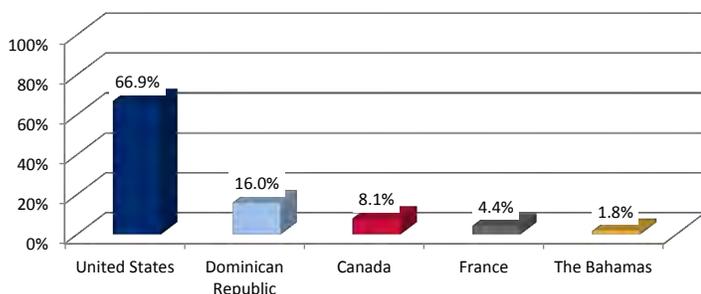
3.2.1. Remittances

Figure 8. Inflow Remittances (US\$ Millions), 2000-12



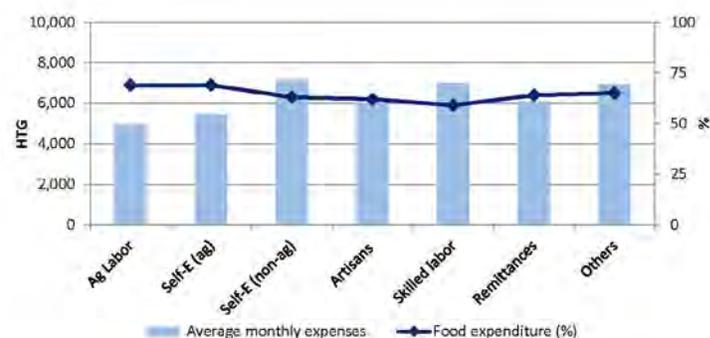
Source: World Bank, 2012.
*estimated

Figure 9. Estimated Remittances by Country of Origin, 2011



Source: World Bank, 2012.

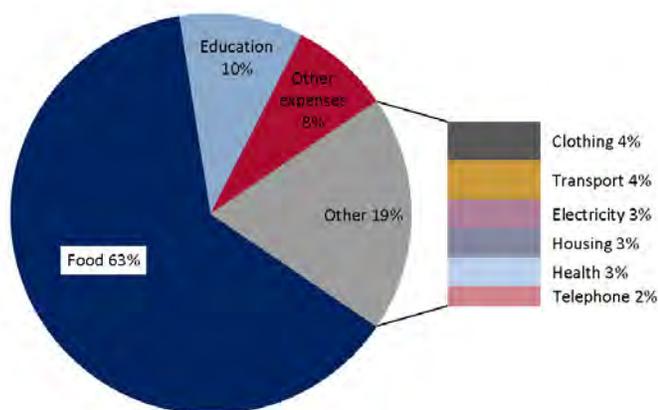
Figure 12. Average Monthly Expenses and Food Expenditure by Income/Livelihood Groups, 2011



Source: CNSA, 2011.

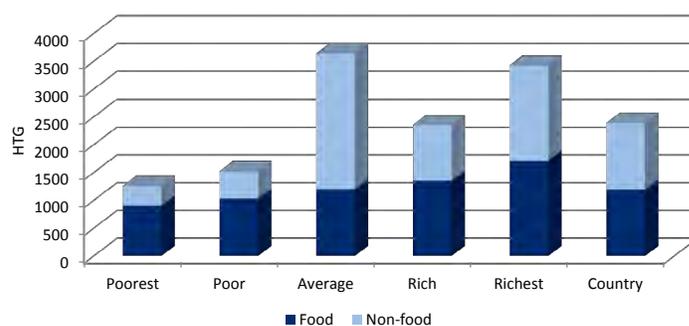
3.3. EXPENDITURE PATTERNS AND BUDGETS

Figure 10. Household Share of Monthly Expenses, 2011



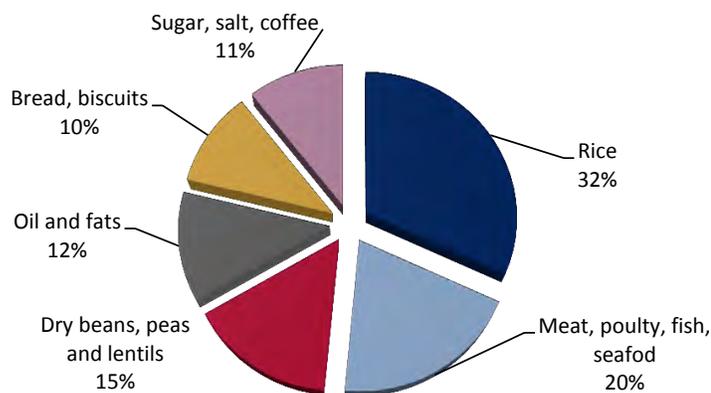
Source: CNSA, 2011.
Note: Electricity includes gas, charcoal and wood.

Figure 13. Per-Capita Food and Non-Food Expenditures by Wealth Index, 2011



Source: CNSA, 2011.

Figure 11. Households Main Food Expenditure Share, 2011



Source: CNSA, 2011.

3.4. POVERTY RATES

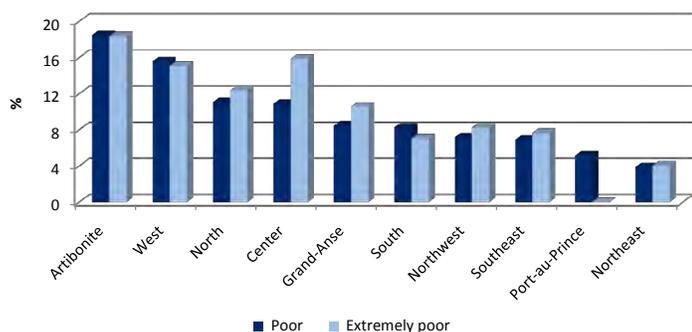
Haiti's current population is estimated at 10.4 million people.³ More than 54 percent of the population lives on less than US\$1 a day, and the figure rises to 76 percent for the number of people living under US\$2.⁴

³ Institut Haitien de Statistique et d'Informatique (IHSI), 2013, Statistiques Demographiques and Sociales. www.ihsi.ht/produit_demo_soc.htm, accessed February 2013.

⁴ USAID-BEST, December 2011, Haiti USAID-BEST Analysis.

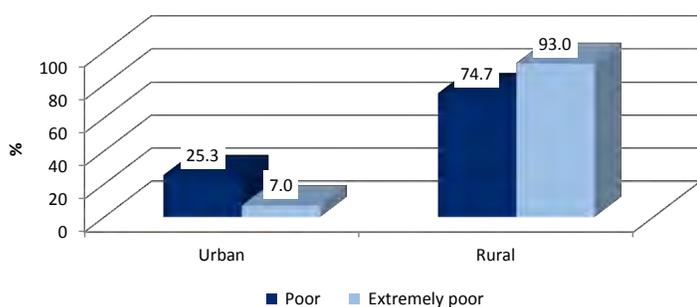
3.4.1. Asset Poverty Rates⁵

Figure 14. Household Poverty Rates by Region, 2005



Source: Echevin, 2011.

Figure 15. Household Poverty Rates by Area, 2005



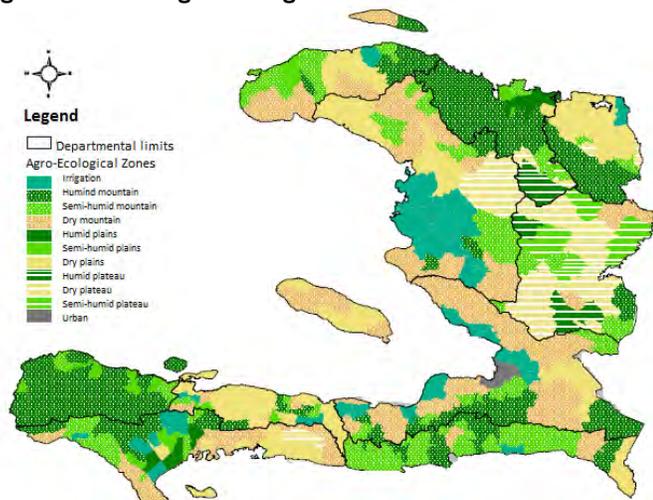
Source: Echevin, 2011.

5 Échevin, Damien and The World Bank Latin America and the Caribbean Region, October 2011, *Vulnerability and Livelihoods before and after the Haiti Earthquake*. For poverty rates, Echevin (2011) considered a household to be “poor” when “its asset index was below the 80th percentile of the 1995 distribution of asset index. An extremely poor household was one whose asset index was below the 40th percentile of the 1995 distribution of asset index.”

ANNEX 4 FOOD SECURITY

4.1. OVERVIEW OF LIVELIHOOD ZONES

Figure 16. Main Agro-ecological Zones



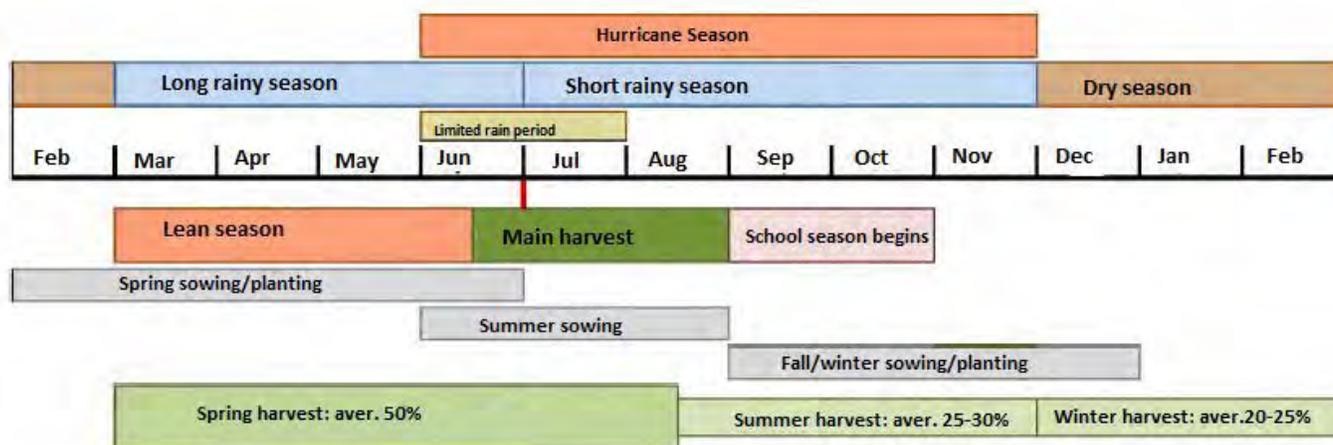
Source: CNSA, 2013.

4.2. SUMMARY OF RECENT FOOD SECURITY ASSESSMENTS

Please see the 2011 USAID-BEST Annexes which include a summary of most recent food security assessments.⁶

4.3. SEASONALITY OF ACTIVITIES AND PRICES

Figure 17. Seasonal Calendar

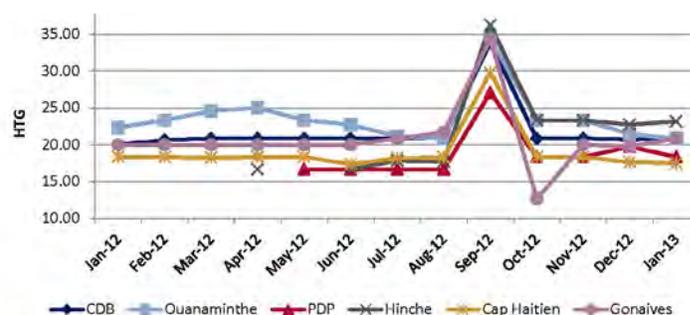


Source: CNSA, 2013.

4.3.1. Seasonality of Prices

- Main market: Croix de Bossales (CDB)
- Northern markets: Ouanaminthe, Port-de-Paix (PDP), Hinche, Cap-Haitien, Gonaïves
- Southern markets: Cayes, Jacmel, Jérémie, Fonds-des-Nègres (FDN)

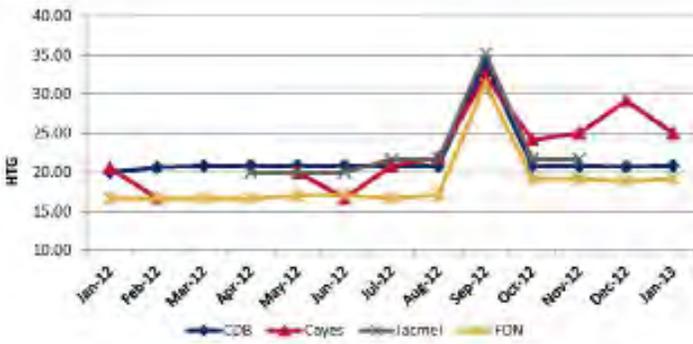
Figure 18. Local (TCS) Rice Price Northern Markets (HTG/lb), January 2012 to January 2013



Source: Created by USAID-BEST, using 2012-2013 data from CNSA.

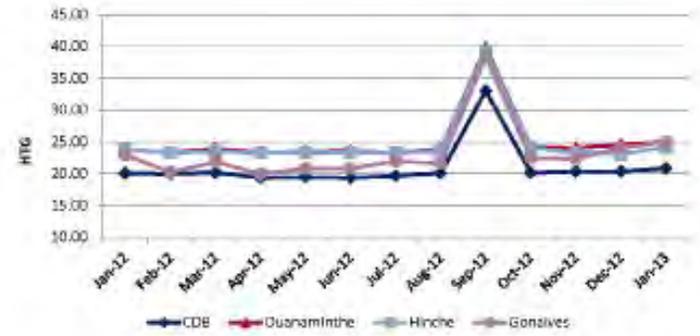
⁶ USAID-BEST, December 2011, Haiti USAID-BEST Analysis.

Figure 19. Local (TCS) Rice Price Southern Markets (HTG/lb), January 2012-January 2013



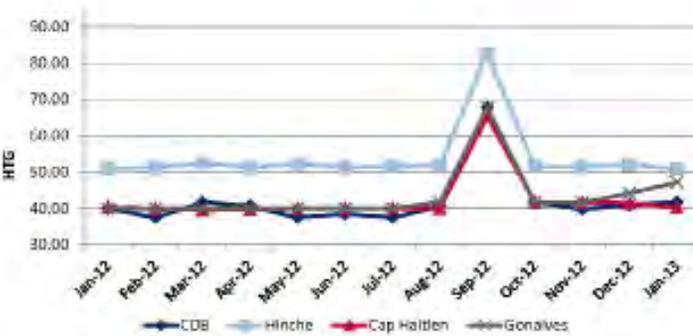
Source: Created by USAID-BEST, using 2012-2013 data from CNSA.

Figure 22. Imported Rice Price Northern Markets (HTG/lb), January 2012 to January 2013



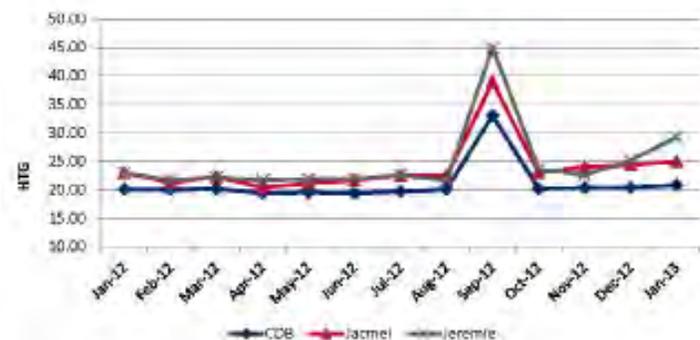
Source: Created by USAID-BEST, using 2012-2013 data from CNSA.

Figure 20. Local (Shelda) Rice Price Northern Markets (HTG/lb), January 2012 to January 2013



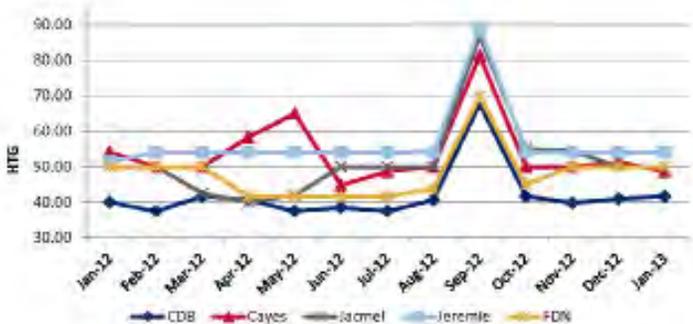
Source: Created by USAID-BEST, using 2012-2013 data from CNSA.

Figure 23. Imported Rice Price Southern Markets (HTG/lb), January 2012 to January 2013



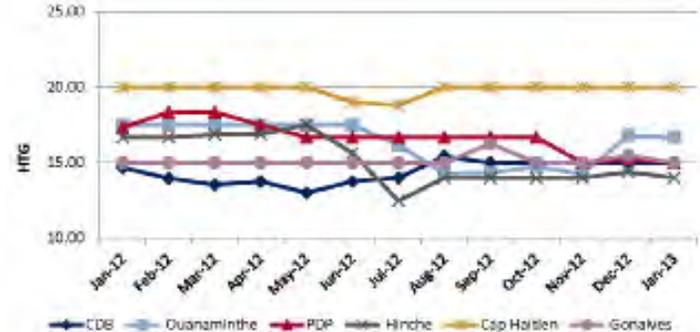
Source: Created by USAID-BEST, using 2012-2013 data from CNSA.

Figure 21. Local (Shelda) Rice Price Southern Markets (HTG/lb), January 2012 to January 2013



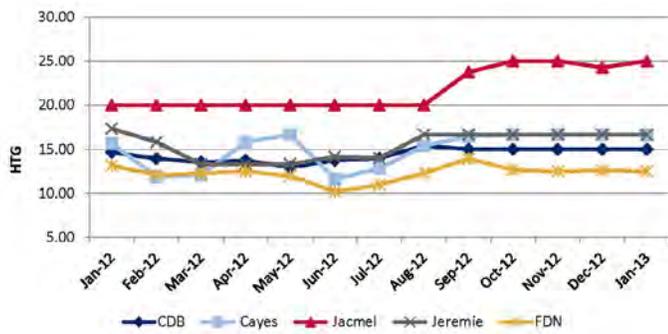
Source: Created by USAID-BEST, using 2012-2013 data from CNSA.

Figure 24. Wheat Flour Price Northern Markets (HTG/lb), January 2012 to January 2013



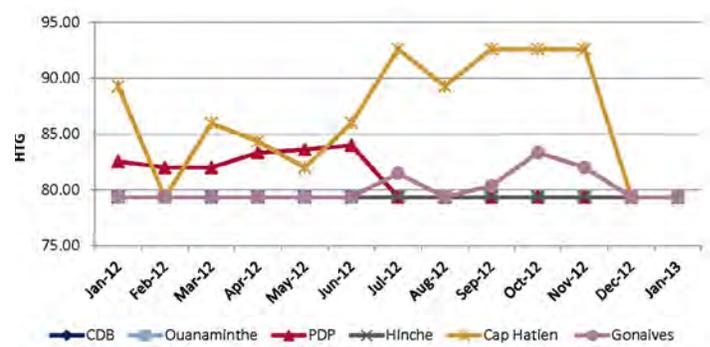
Source: Created by USAID-BEST, using 2012-2013 data from CNSA.

Figure 25. Wheat Flour Price Southern Markets (HTG/lb), January 2012 to January 2013



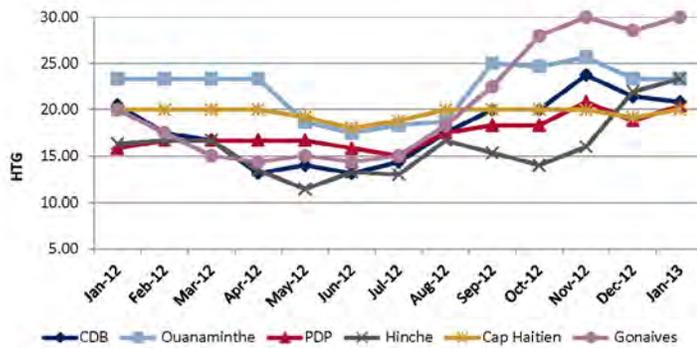
Source: Created by USAID-BEST, using 2012-2013 data from CNSA.

Figure 28. Gourmet Oil Price Northern Markets (HTG/L), January 2012 to January 2013



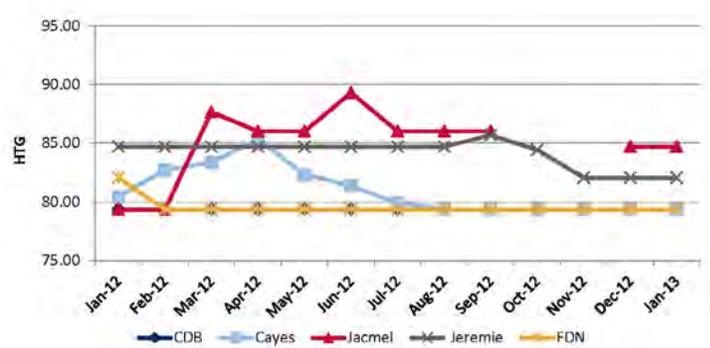
Source: Created by USAID-BEST, using 2012-2013 data from CNSA.

Figure 26. Wheat Grain Price Northern Markets (HTG/lb), January 2012 to January 2013



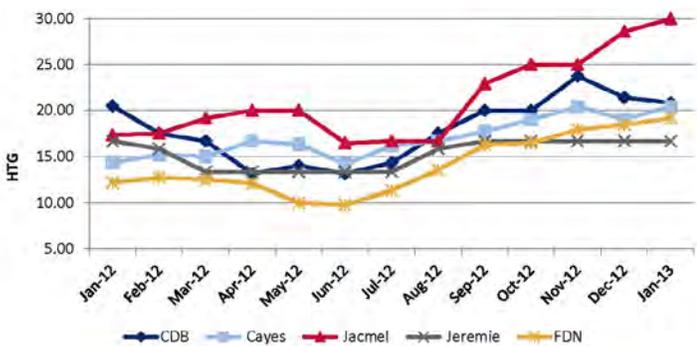
Source: Created by USAID-BEST, using 2012-2013 data from CNSA.

Figure 29. Gourmet Oil Price Southern Markets (HTG/L), January 2012 to January 2013



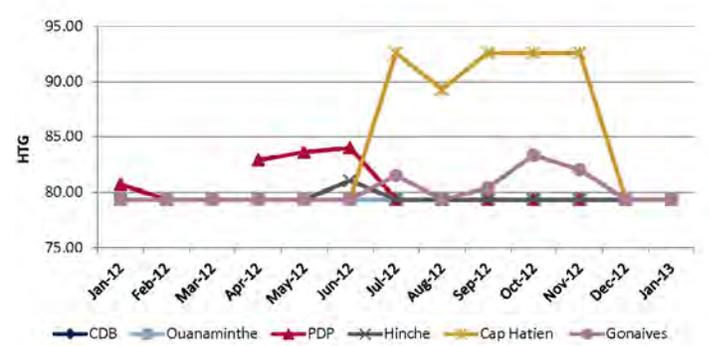
Source: Created by USAID-BEST, using 2012-2013 data from CNSA.

Figure 27. Wheat Grain Price Southern Markets (HTG/lb), January 2012 to January 2013



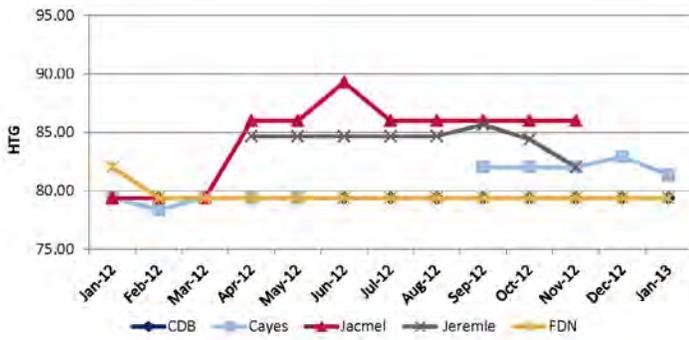
Source: Created by USAID-BEST, using 2012-2013 data from CNSA.

Figure 30. Ti Malice Oil Price Northern Markets (HTG/L), January 2012 to January 2013



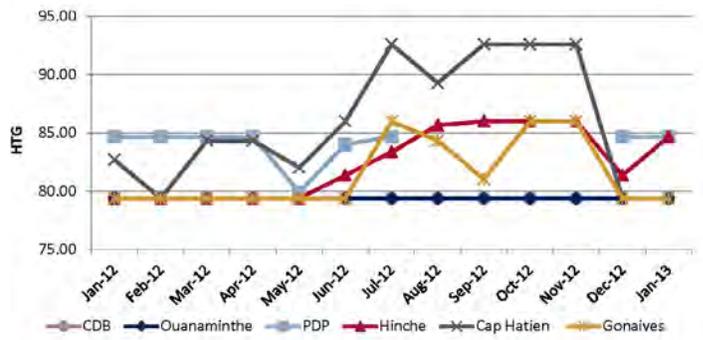
Source: Created by USAID-BEST, using 2012-2013 data from CNSA.

Figure 31. Ti Malice Oil Price Southern Markets (HTG/L), January 2012 to January 2013



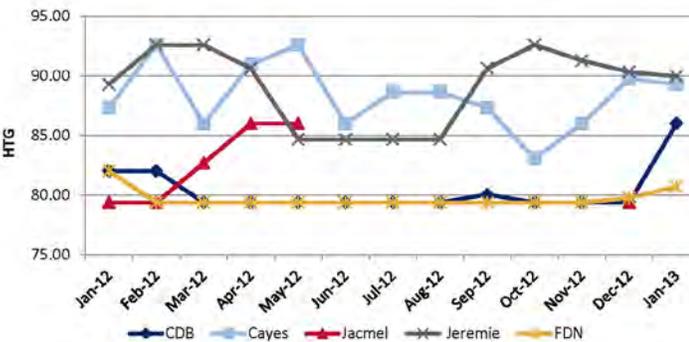
Source: Created by USAID-BEST, using 2012-2013 data from CNSA.

Figure 34. Mazola Oil Price Northern Markets (HTG/L), January 2012 to January 2013



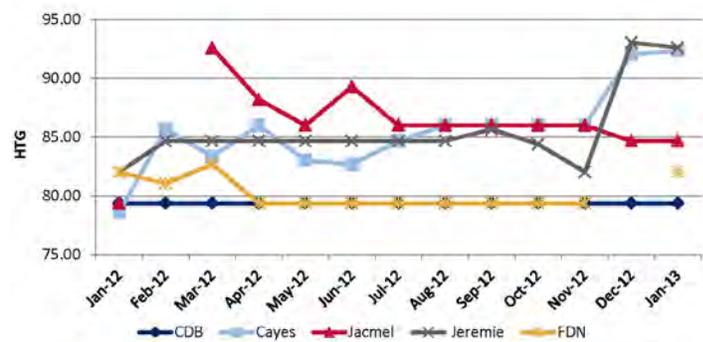
Source: Created by USAID-BEST, using 2012-2013 data from CNSA.

Figure 32. Alberto Oil Price Southern Markets (HTG/L), January 2012 to January 2013



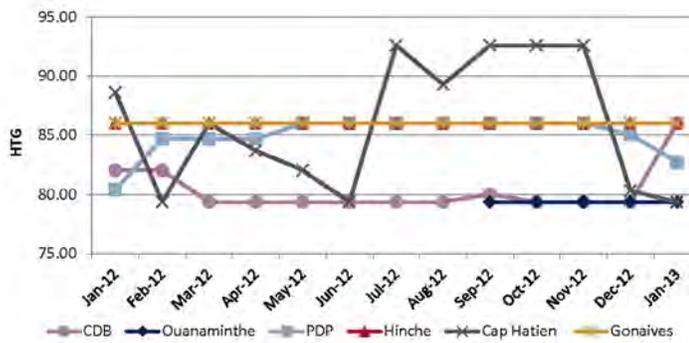
Source: Created by USAID-BEST, using 2012-2013 data from CNSA.

Figure 35. Mazola Oil Price Southern Markets (HTG/L), January 2012 to January 2013



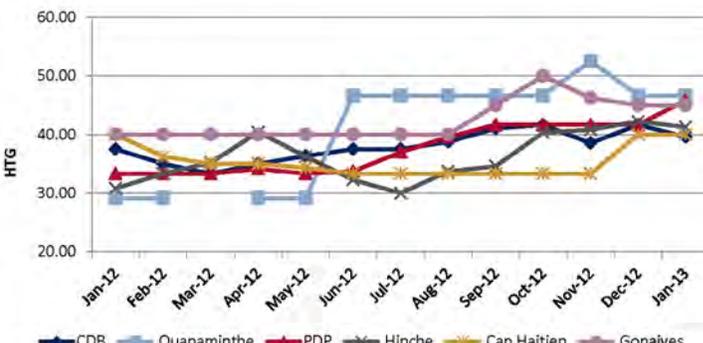
Source: Created by USAID-BEST, using 2012-2013 data from CNSA.

Figure 33. Alberto Oil Price Northern Markets (HTG/L), January 2012 to January 2013



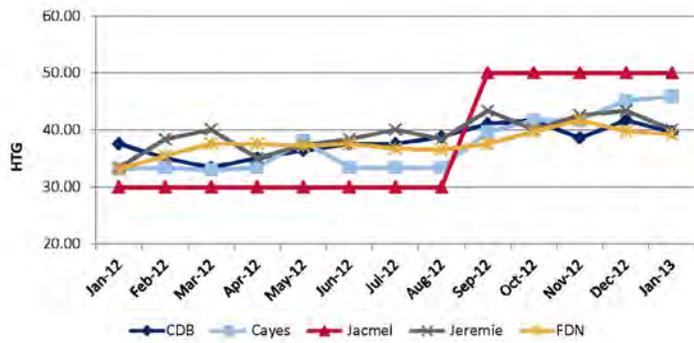
Source: Created by USAID-BEST, using 2012-2013 data from CNSA.

Figure 36. Pinto Bean Price Northern Markets (HTG/lb), January 2012 to January 2013



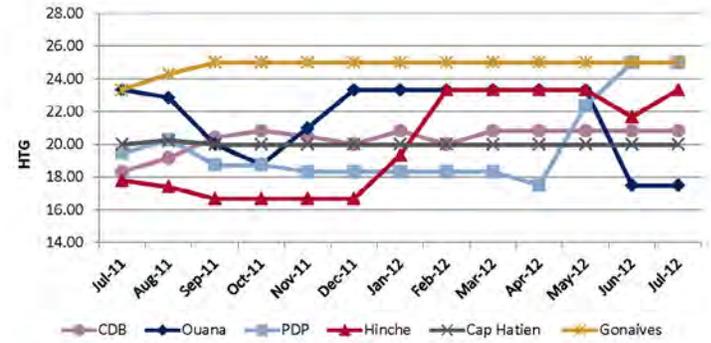
Source: Created by USAID-BEST, using 2012-2013 data from CNSA.

Figure 37. Pinto Bean Price Southern Markets (HTG/lb), January 2012 to January 2013



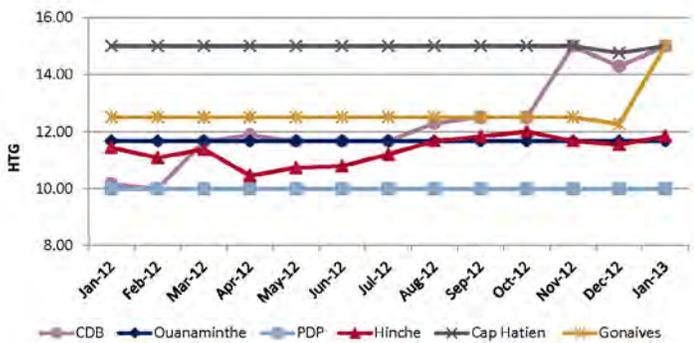
Source: Created by USAID-BEST, using 2012-2013 data from CNSA.

Figure 40. Imported Milled Maize Price Northern Markets (HTG/lb), July 2011 to July 2012



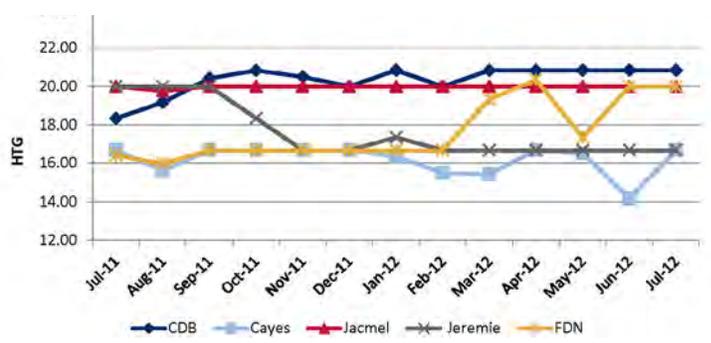
Source: Created by USAID-BEST, using 2012-2013 data from CNSA.

Figure 38. Local Milled Maize Price Northern Markets (HTG/lb), January 2012 to January 2013



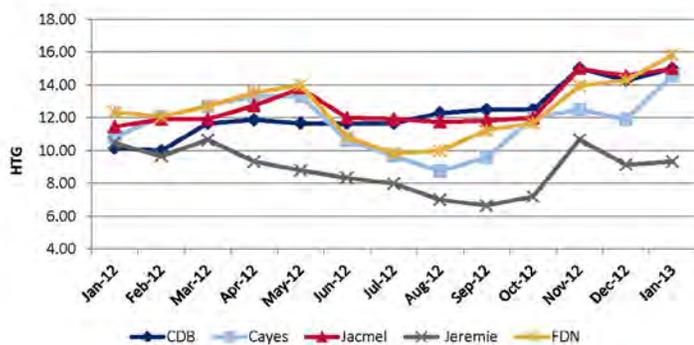
Source: Created by USAID-BEST, using 2012-2013 data from CNSA.

Figure 41. Imported Milled Maize Price in Southern Markets (HTG/lb), July 2011 to July 2012



Source: Created by USAID-BEST, using 2012-2013 data from CNSA.

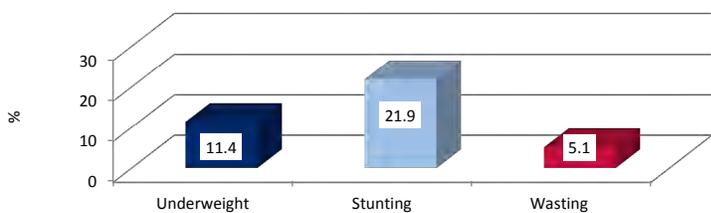
Figure 39. Local Milled Maize Price Southern Markets (HTG/lb), January 2012 to January 2013



Source: Created by USAID-BEST, using 2012-2013 data from CNSA.

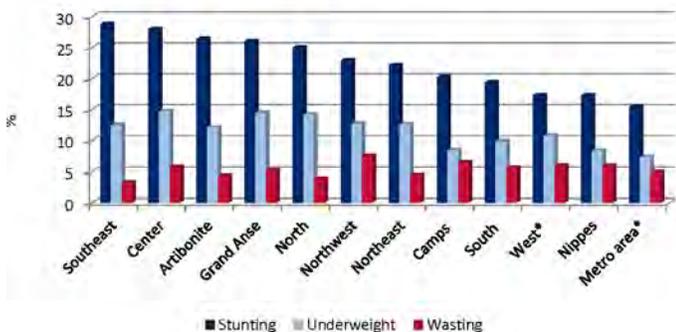
4.4. MALNUTRITION RATES

Figure 42. Malnutrition Rates (% of Population)



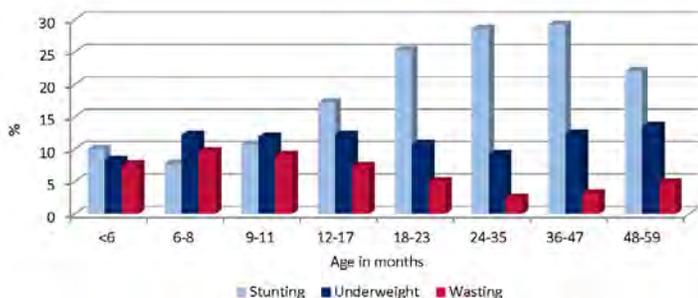
Source: Created by USAID-BEST, using data from IHE, 2012.

Figure 43. Malnutrition Rates by Area



Source: Created by USAID-BEST, using data from IHE, 2012.
*Not including provisional camp sites.

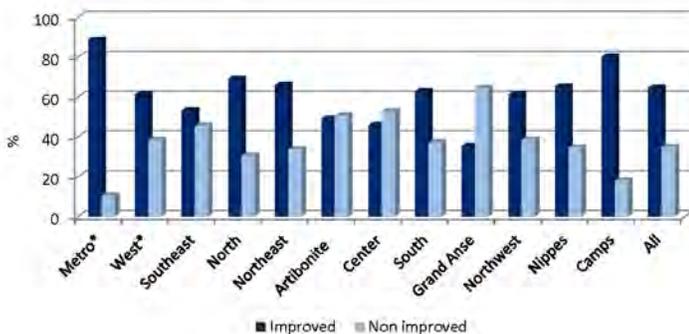
Figure 44. Malnutrition Rates by Age Category (in months)



Source: Created by USAID-BEST, using data from IHE, 2012.

4.5. WATER, SANITATION, AND HYGIENE ACCESS

Figure 45. Households Access to Drinking Water Sources by Departments



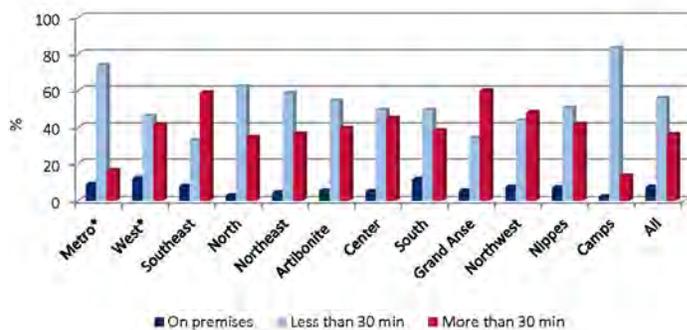
Source: Created by USAID-BEST, using data from IHE, 2012.
*Not including provisional camp sites.

Table 8. Sources of Drinking Water

Type	Characteristics
Improved	In-house tap, public tap or fountain, protected well, protected water source, rainwater, bottled or from sales company.
Not improved	Unprotected wells, unprotected water source, truck or cart with small tank, surface water, and other unprotected sources.

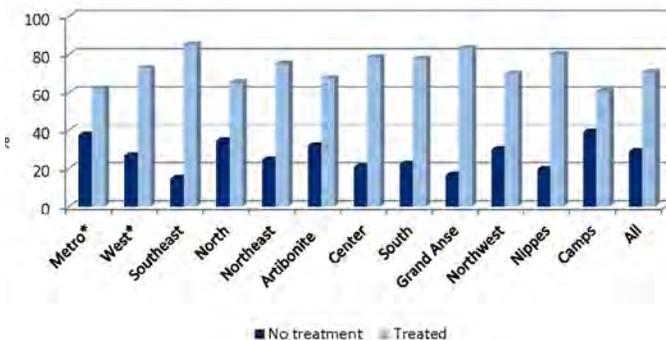
Source: IHE, 2012.

Figure 46. Household Travel Time to Source of Drinking Water by Department



Source: Created by USAID-BEST, using data from IHE, 2012.
*Not including provisional camp sites.

Figure 47. Household Water Treatment by Department

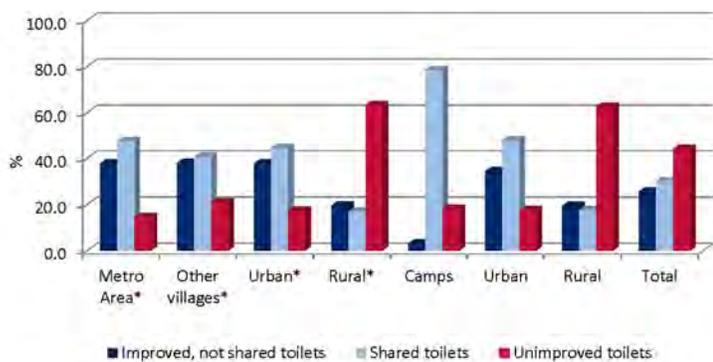


Source: Created by USAID-BEST, using data from IHE, 2012.
*Not including provisional camp sites.

Water treatment types:

- Boiling
- Adding bleach/chlorine
- Adding sachet/tablets of purifier/Aquatab
- Passing through a machine
- Ceramic, sand or other filter
- Solar purification
- Other

Figure 48. Households Toilet Use by Area



Source: Created by USAID-BEST, using data from IHE, 2012.

*Not including provisional camp sites.

Table 9. Toilet Types

Type	Characteristics
Improved, not shared toilets	Toilets with flush or pour flush, connected to a sewer system, septic tank, a pit, or connected to another type of system. Improved self-ventilated latrine with slab, composting toilets, or portable chemical toilets.
Shared toilets	Same as above, but shared between several households.
Unimproved toilets	Latrines without slab or open pit, bucket toilets or suspended latrines, and other categories.

Source: IHE, 2012.

Table 10. Points of Comparison for Available Food Voucher Methods

	Physical Voucher	Voila Ti-Kash	Digicel E-Voucher
Description of Specific Methodology	<p>Beneficiaries and vendors are each given an ID card with a unique serial number</p> <p>Physical vouchers with unique serial numbers are designed and ordered from outside Haiti.</p> <p>Each month, fairs are organized for each commune by section</p> <p>Beneficiaries assigned to each fair register at the beginning of the fair day and sign for receipt of a physical voucher worth 2000 HTG.</p> <p>Beneficiaries use the voucher within the fair that day. Vendors collect the voucher coupons for the sales that they have made and submit them to CRS at the end of the fair for verification of amount to be paid.</p> <p>CRS and Vendor sign an Authorization de Paie, to indicate how much a vendor is owed for that day's activities.</p> <p>The vendor will be paid by check in Jeremie within 7 days of the completion of the monthly fairs in that commune; CRS will reimburse transport costs to Jeremie</p>	<p>Beneficiaries and vendors are each given an ID card with a unique serial number.</p> <p>CRS purchases and distributes Voila cell phones & PINs for beneficiaries and vendors; CRS & Voila train beneficiaries/vendors on use of cell phones and Ti-Kash.</p> <p>CRS helps beneficiaries activate their Ti-Kash account & change their PIN numbers.</p> <p>CRS provides beneficiaries with a list of registered Voila vendors. Vendors register as Ti-Kash agents/vendors.</p> <p>CRS provides Voila with a list of beneficiaries/sim cards and the amount to transfer to their Voila Ti-Kash account each month; CRS ensures adequate funds in CRS' UNIBANK account to cover these transfers.</p> <p>Beneficiaries visit vendors and make their purchases over the course of the month using their phone; money is transferred directly from their Ti-Kash account to the vendor's account.</p> <p>There is a maximum on beneficiary accounts, so if they have not used at least 1,500 HTG their next transaction it will not go through (can monitor use of the funds).</p> <p>Voila vendors will need to cash out upon reaching 100,000 HTG (Note: this amount can go higher for large businesses).</p>	<p>Beneficiaries and vendors are each given an ID card with a unique serial number.</p> <p>CRS opens a BNS account and ensures adequate funds are in the account each month to cover anticipated transactions.</p> <p>CRS purchases and distributes Digicel cell phones for vendors;</p> <p>vendors register as Digicel agents/vendors.</p> <p>CRS & Digicel train beneficiaries/vendors on use of cell phones and e-vouchers</p> <p>CRS collects additional personal info from each beneficiary (for security in case of lost PINs) and provides each beneficiary with a PIN (originating from Digicel); Would need the system to allow the beneficiary to change their pin.</p> <p>CRS provides beneficiaries with a list of registered Digicel vendors. CRS provides a list of beneficiaries to Digicel by name/serial number and the gourde amount they can access each month.</p> <p>Beneficiaries visit registered vendors and make their purchases over the course of the month using the vendor's phone; the money is transferred directly from CRS' BNS account to the vendor's Tcho Tcho mobile money account.</p> <p>Maximum for a single vendor would be 1,000,000 HTG per month.</p>
Requirements	<p>Printing of physical vouchers.</p> <p>Maintaining security of physical vouchers.</p> <p>Staff to set up fairs, undertake voucher counts and make vendor payments.</p>	<p>UNIBANK account.</p> <p>Voila cell phone coverage.</p> <p>Voila cell phones for vendors/beneficiaries.</p> <p>Activating Voila Ti-Kash accounts for beneficiaries.</p> <p>Registration with Voila for vendors.</p>	<p>BNS account.</p> <p>Digicel cell phone coverage.</p> <p>Digicel cell phones for vendors only.</p> <p>Registration with Digicel for vendors.</p>
Extra Costs	<p>Printing of vouchers.</p> <p>Fairs (Set up materials, staff for fairs and voucher counts).</p>	<p>Voila cell phones for beneficiaries and vendors</p> <p>Phone charges per transaction (CRS transferring money to beneficiaries; beneficiaries transferring money to vendors).</p>	<p>Digicel phones for vendors.</p> <p>Digicel management fee of 10% of transactions made - this would include costs of all phone transactions and vendor payments.</p>
Limitations	<p>None.</p>	<p>Can only be used in Voila coverage area.</p>	<p>Can only be used in Digicel coverage area (otherwise will be using a wireless system which may create issues of duplication of transactions if wireless system is down).</p>
Strengths	<p>Can be used in any location.</p> <p>Easily explainable to beneficiaries.</p> <p>No additional costs to beneficiaries/vendors.</p> <p>Allows greater interaction with beneficiaries on a regular basis.</p> <p>Easy monitoring of items purchased at the fairs.</p> <p>Does not require access to electricity for charging phones.</p>	<p>Fairs not needed, unless markets not of sufficient size.</p> <p>Payments transferred directly from CRS to beneficiaries & then beneficiaries to vendors.</p> <p>Contract already in place with Voila for Ti-Kash services.</p> <p>Beneficiaries have more flexibility in accessing vendors.</p>	<p>Digicel has large coverage area, especially in rural areas of Grand Anse.</p> <p>Does not require purchase of phones for all beneficiaries or physical vouchers.</p> <p>Fairs not needed, unless markets not of sufficient size.</p> <p>Payments transferred directly from CRS to vendors.</p> <p>Can limit purchases to approved vendors, which enables closer monitoring and evaluation of project.</p> <p>Beneficiaries have more flexibility in accessing vendors.</p>

	Physical Voucher	Voila Ti-Kash	Digicel E-Voucher
Weaknesses	<p>Higher staffing needs.</p> <p>Physical need for fairs to distribute vouchers each month.</p> <p>Limited time available to beneficiaries to use vouchers (e.g., 1 day per month).</p>	<p>Limited coverage of Voila, mostly restricted to urban Jeremie.</p> <p>Additional costs to beneficiaries/vendors for transactions.</p> <p>Additional costs for vendors' transport to cash out points, if none available in local area; difficult to track.</p> <p>No way to limit the vendors that beneficiaries may use (other than by remoteness of location).</p> <p>Less oversight over purchasing process.</p>	<p>No contract already in place with Digicel.</p> <p>No bank account currently in place with BNS.</p> <p>Digicel has to develop system for e-vouchers.</p> <p>Additional costs for vendors' transport to cash out points, if none available in local area; difficult to track.</p> <p>Less oversight over purchasing process.</p>
Security Considerations	<p>Possible fraud via duplication of vouchers.</p> <p>Possible theft of vouchers or used coupons (Note: even if disallowed for redemption, stolen vouchers could delay program as may need to reprint).</p>	<p>Possible fraud via stealing of cell phone/PIN.</p> <p>Possible misuse by beneficiaries not used to the system and with possibly less support/oversight from CRS (if system is less controlled).</p>	<p>Possible fraud via stealing of beneficiaries' ID # and PIN, including by vendors since beneficiaries will use the vendor's cell phone to register purchase.</p> <p>Possible misuse by beneficiaries not used to the system and with less support/oversight from CRS (if system is less controlled).</p>

Source: CRS.

Note: Beneficiary identification, vendor identification, market assessments, household baseline/evaluations will remain the same regardless of methodology.

ANNEX 5

METHODOLOGY FOR DETERMINING IMPACT OF DISTRIBUTED FOOD AID

5.1. INTRODUCTION⁷

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 distributed⁸ 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 USAID-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).⁹ 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

⁷ 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 USAID-BEST team undertakes special studies mid-MYAP, for example, to inform future programming.

⁸ 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.

⁹ 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.

purchases or small-scale production to compensate for a food deficit in the normal diet caused by insufficient purchasing power, in which case the food aid represents additional consumption;

- Use a portion or all of the food aid to displace market purchases that otherwise would have been made;
- Use a portion or all of the food aid to substitute for the home consumption of a household’s own production and sell the released production in the market; or
- Consume some portion (or none of) the food aid and sell the other portion (or all) on the market, and use the income generated from that sale to purchase other food and/or non-food goods.

Distributed food aid also has the potential to change household labor supply decisions, particularly when food is distributed under a Food for Work program.

If enough beneficiaries (intended and/or unintended beneficiaries) within a given geographic area react to food aid by altering their decisions about market purchases, small-scale production, or own labor supply, distributed food aid has the potential to cause a number of negative impacts. The most frequently alleged problems include:

- Depressed producer prices (production disincentive).
- Dependency.
- Labor supply disincentives.
- Disruption of markets (especially traders).

Targeting. The USAID-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.¹⁰ 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.

¹⁰ For a review of the economic rationale, see Christopher Barrett, 2002, “Food Aid Effectiveness: It’s the Targeting, Stupid!”

Two concepts are fundamental to targeting. Exclusion errors occur when food aid fails to reach the needy. Errors of exclusion are a humanitarian concern. Inclusion errors occur when food aid is provided to the non-needy. Errors of inclusion (“leakage”) are a Bellmon concern. Errors of inclusion are also a humanitarian concern because, by definition, leakage involves the inefficient use of scarce resources. Improvements in targeting (reductions in inclusion errors) achieves three simultaneous objectives: 1) increases efficiency of food of food aid in accomplishing humanitarian and development goals; 2) maximizes efficiency of Title II resources; 3) ensures compliance with the Bellmon Amendment.

While the USAID-BEST approach to assessing the potential impact of food aid starts with this assumption, it also recognizes that effective targeting is both expensive in terms of human and financial capital and extremely difficult to implement and sustain. Even the most effectively targeted programs can never prevent all leakage.¹¹ 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 USAID-BEST study is to present USAID decision makers with sufficient information to allow determination of whether or not inclusion errors will substantially impact markets.¹² 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

¹¹ For more background on targeting, see Hoddinott (1999), Barrett (2002), and EU/FAO (2008).

¹² Importantly, whether the effect is substantial is quite subjective and will likely vary quite widely across contexts. While the USAID-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).

about each of these possible proxy indicators are discussed in Step 4 of Section 2.¹³ 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 USAID-BEST analysis will, therefore, combine the highest quality of quantitative and qualitative information available about demand and supply characteristics that are likely to influence the production and market responses to food aid. The analysis focuses on three inter-related subject matters: needs assessments, effectiveness of targeting, and analysis of markets that are critical for food security. An overview of a standard analytical process follows.

5.2. 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, USAID-BEST will analyze the highest quality and most relevant data available. USAID-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.

¹³ 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.

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, USAID-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.¹⁴ 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

¹⁴ 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.

available, USAID-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 USAID-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 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.¹⁵

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 Section 4 for a description of possible proxy indicators of additionality.

¹⁵ 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>.

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), USAID-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), USAID-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, USAID-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, USAID-BEST will estimate the number of households who are both PM2A-eligible and for whom PM2A rations would most represent additional consumption (using the proxy indicator(s) of additionality), to estimate the number of households that could be targeted for year-round individual and household rations within each district without introducing Bellmon concerns.

USAID-BEST will then rank sub-national administrative units according to those in which PM2A rations would:

1. Most likely represent additional consumption, and therefore be unlikely to pose any negative Bellmon impact;
2. Address the highest rates of malnutrition at the district level; and
3. Target the largest total number of PM2A-eligible households, an important efficiency consideration when implementing an integrated development program.

Step 6: Review Food Security Assessments and Livelihoods Reports to Inform Sub-National Analysis

Descriptive analyses of the ways in which households secure their livelihoods, and their varying degrees of vulnerability to external shocks, provide critical context to a discussion of potential household responses to the receipt of food aid.

Assessed food insecurity. Whenever possible, USAID-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 USAID-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, USAID-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, USAID-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, USAID-BEST will report:

- NGO or government agency
- Location
- Modality
- Expected duration of activity
- Ration (size, composition, kcals)
- Planned and actual beneficiary coverage

Combined with food insecurity measures and estimated district-specific nutrition gap (or other proxy indicators of additionality), this overview of existing food aid and cash transfer programs will provide relevant USAID decision makers a more accurate measure of the “food gap” a proposed food aid distribution program should fill. This overview will allow both a spatial and temporal assessment of a potential food aid disincentive effect.

Step 8: Review All Available Baseline Market Analyses

Whether a donor provides food aid rations to food insecure households across the breadth of a country or only in a localized area, the donor must have an understanding of the current functioning of agricultural markets critical for food security, as those are the markets most likely to be impacted by the introduction of food aid.

When attempting to assess the potential impact of food aid in a localized area (whether distributed in kind, in cash, or through subsidized food sales), it is especially important to understand 1) the functioning of local markets and 2) how well-integrated local markets are with markets outside of the food aid intervention area, and therefore how any changes in food prices might be transmitted to other markets.

A unique challenge in attempting to assess the impact of food aid on markets and incentives in many LIFDC countries arises due to the lack of available high-quality and disaggregated baseline market information. Markets and market players have often been impacted by a series of complex changes; these changes reduce the utility of any but the most recent thorough market assessments. Production and market data is often scarce and of very poor quality, and/or is tainted by concerns about politicization of the data. That said, while market analysis is often thought of as a highly quantitative exercise, much can be gained from a descriptive analysis of the structure, conduct, and performance of markets. Analysis using a SCP framework can be well-suited to low-cost rapid appraisal techniques, such as those used in USAID-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 Section 3) to assess the current state of agricultural markets as of the study date. The baseline will be accomplished through a combination of desk study, key informant interviews, and intensive field work.

The choice of commodity markets for assessment will be determined by the food aid commodities typically distributed in-country, commodity markets likely impacted by such distribution, and any commodities critical for food security whose prices may be impacted by a sudden increase in the supply of food in food insecure areas. These commodity markets will generally involve the major cereal markets (e.g., wheat, maize, small grains), major pulses, edible oils, and livestock markets.

The choice of physical markets to include in the field visit will likely include those major markets currently monitored by, for example, FEWS NET, WFP, and/or recipient country

Ministries or Central Statistics Office, along with a host of other markets throughout the country that are critical for food security. The USAID-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 USAID-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 Section 3) and use a Structure Conduct Performance (SCP) Framework as a lens through which to investigate the state of markets across the country. Team members will conduct interviews with subsistence farmers, small-scale and large-scale producers, traders, small and large processors and millers, wholesalers, and retailers. In geographic areas where food aid interventions are currently taking place, team members will also interview a sample of beneficiaries and non-beneficiaries of food aid.

Commodity markets and physical markets will be assessed using Structure Conduct Performance (SCP) model, as adapted by FEWS NET from Industrial Organization Theory¹⁶ to the realities of markets in developing countries.¹⁷

According to traditional neo-classical economic theory, a market is “performing” if an increase in demand or a decrease in supply results in a new equilibrium characterized by a higher price, which clears the market by equating quantity supplied and quantity demanded. This definition of market performance is insufficient from a food security perspective because a price increase that substantially diminishes the purchasing power of households, though an equilibrium, has undesirable social outcomes that threaten food security. For this reason, we turn to the SCP concept of market performance.

Within the SCP framework, markets are said to perform well if they achieve socially desirable goals such as availability of a sufficient quantity, diversity, and quality of goods to satisfy demand at prices that are “fair” to traders, producers, and consumers. Fair prices ensure reasonable margins to traders, enabling them to continue engagement in that market. Fair prices to consumers assure that a cross-section of the population is able to access goods via the market. Short and long-term price stability, as well as market efficiency, are indicators of market performance.

Market performance is derived from basic conditions, market structure, and market conduct.

Basic conditions broadly describe basic traits of the country and economy, including seasons and seasonality, infrastructure, consumption characteristics such as elasticities¹⁸ and income

¹⁶ See Bain (1959).

¹⁷ 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).

¹⁸ Elasticities are a common way to describe the responsiveness of demand

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, USAID-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, USAID-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 USAID-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 USAID-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 USAID-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,

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 the USAID-BEST Monetized Food Aid Methodology and FEWS NET (2008b).

and others. Insights into future initiatives that may impact food security in potential Title II intervention areas (e.g., a World Bank, Millennium Challenge Corporation, or other donor's planned program affecting agriculture) are more likely to be gained through these meetings than through desk review prior to the field visit.

In-depth meetings with the private sector—producer/farmer groups and associations, traders and other middlemen, processors, importers and exporters, and shippers—will be critical. Formal and informal intelligence gathered through these meetings will be key to understanding the latest market dynamics and future trends. Discussion with producers, processors, and traders¹⁹ 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 USAID-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 USAID-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 USAID-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. USAID-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

USAID-BEST will report results according to the agreed-upon report outline as detailed in the country study SOW. USAID-BEST team members should anticipate submission of an initial

¹⁹ 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.

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.

5.3. USAID-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.)

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., 1 kg 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.²⁰

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?

²⁰ 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.

NGOs distributing food aid

What is targeting criteria (geographic targeting, household targeting, food delivery mechanisms)?

Do you have the capacity to implement and enforce the selection criteria?

Do you think households understand the targeting criteria?

Do you have any “lessons learned” from your own past programs or other NGOs’ programs?

What are the greatest constraints to improving targeting?

If there is one thing you could change about the targeting process, what would it be?

How appropriate is the food aid program in terms of commodity type, ration size, delivery schedule, and venue?

Is the distributed food likely to be an “inferior good,” one consumed in disproportionately greater quantities by the poor?

5.4. 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 USAID-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 USAID-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 Score²¹ (FCS) is collected via household surveys, and is generally based on a seven-day recall of food consumption. The weighted score reflects both dietary diversity and frequency of consumption of food items. Depending on whether the survey is implemented during a typical harvest or typical lean season will affect the validity of the FCS as a measure of average household food consumption. If, for example, the survey that derives the FCS is conducted during a favorable harvest period, households identified as food insecure using “poor FCS” as an indicator may reasonably be considered as chronically food insecure, since these households consumed very poor diets in favorable harvest periods.

FCS is not a quantitative measure of a “nutrition gap,” and cannot be compared with the ration under the proposed food aid program to determine the extent to which the program fills (or potentially overfills) the nutrition gap. However, a FCS does provide a snapshot of both the frequency and diversity of household staple consumption and is therefore a reasonable proxy indicator of the availability and access dimensions of food security and, to a lesser extent, the utilization dimension.²²

21 For details on the calculation, use and validity of food consumption scores and other measures of dietary diversity in food security analysis, please see (1) WFP’s “Technical Guidance Sheet - Food Consumption Analysis: Calculation and Use of the Food Consumption Score in Food Security Analysis”, accessible via http://documents.wfp.org/stellent/groups/public/documents/manual_guide_proced/wfp197216.pdf; (2) Wiesmann, Doris (June 2009), *Validation of the World Food Programme’s Food Consumption Score and Alternative Indicators of Household Food Security*, IFPRI Discussion Paper 870, Washington DC; and (3) Hoddinott, John and Yisehac Yohannes (2002), *Dietary Diversity as a Food Security Indicator*, IFPRI Discussion Paper 136, Washington DC: IFPRI.

22 The recent USAID-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.

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.²³

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.²⁴ However, extreme poverty is not a quantitative measure of a nutrition gap that can be used to determine the extent to which a proposed food aid ration might fill (or potentially overfill) that gap. Nevertheless, households living in extreme poverty can reasonably be considered households for whom food aid would likely represent additional consumption.

Prevalence of Malnutrition in Children

Chronic malnutrition (stunting, or low height-for-age) in children under five is an additional potential indicator of chronic food deficits. Malnutrition rates may reflect either inadequate intake, malabsorption due to infectious disease, or some combination of both. To the extent malnutrition rates reflect disease prevalence more than inadequate intake, any conclusions about food deficits drawn from malnutrition rates will be an inaccurate reflection of household food deficits. To the extent the prevalence of stunting reflects poor availability and/or poor access, such prevalence rates can appropriately inform geographic targeting from a Bellmon perspective.

Where a high percentage of households report both poor food consumption and poor food access, and surveys show high rates of chronic malnutrition in children under five, poor nutritional outcomes will likely be more responsive to food aid intended as supplemental nutrition. By geographically targeting areas where these indicators coincide, a PM2A program will help ensure that any given PM2A beneficiary household will more than likely increase overall household food consumption, and therefore represent additional consumption, relative to households in other geographic areas with lower rates of poverty and chronic malnutrition.

The most recent and reliable source of reliable district-level malnutrition rates is often available from Demographic and Health Surveys.

5.5. RECOMMENDED READING

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23 The recent USAID-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.

24 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.

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ANNEX 7

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Back cover:

A man begins the trek up a hill in town. Jacmel, Haiti, January 2013.

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