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# EMERGENCY MARKET MAPPING AND ANALYSIS: THE MARKET FOR BEANS IN SUD-EST DEPARTMENT OF HAITI

microREPORT #164

## **APRIL 2010**

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## **DISCLAIMER**

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## EXECUTIVE SUMMARY

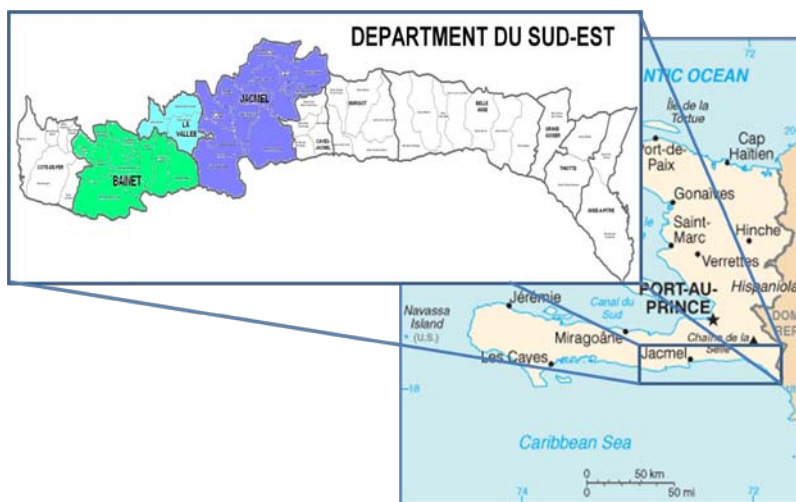
This report analyzes the beans market system in the Sud-Est (Southeast) department of Haiti in March-April 2010, several months after the January 12 earthquake in Haiti. This market system was selected for its importance as both a source of income and as a staple food in Sud-Est and throughout Haiti. The report finds there are two main constraints in the beans market system: a lack of purchasing power among Sud-Est households and a lack of cash and assets among beans growers, which limits ability to buy bean seeds and may lead to a supply shortage later in the year if not addressed. Additionally, several earthquake-related disruptions to key services and infrastructure, such as transportation and storage, persist. Food aid has increased significantly and may also contribute to decreased demand. Recommended short-term interventions include seed distributions, scaling down food distributions, and cash-based programs to improve buying power of affected households. Longer-term recommended interventions aim to improve overall functioning of the beans market to mitigate future disruptions.

## SECTION I. EMERGENCY CONTEXT

On January 12, 2010 a magnitude 7.0 earthquake struck Haiti, with the epicenter approximately 15 km west of Port-au-Prince. As of March 2010, 222,653 people were estimated to have died in the surrounding areas, with an additional 310,000 wounded.<sup>1</sup> More than 511,000 people subsequently left the Port-au-Prince area for elsewhere in Haiti, and an estimated 1.2 million are living in tents or camps.<sup>2</sup> Since the original earthquake, Haiti has experienced frequent aftershocks. A massive humanitarian response has included distribution of food (an estimated 26,500 metric tons in the first two months) and non-food items, medical services and others.

The Port-au-Prince area and the Ouest and Sud-Est regions were among the hardest hit. This assessment focused on the Sud-Est department, with fieldwork conducted in the *communes* (counties) of Jacmel, La Vallée and Bainet. Sud-Est department covers slightly more than 2,000 km<sup>2</sup> with a population of around 575,000 - 000 – just under 6 percent of Haiti’s population.<sup>3</sup> Its capital is Jacmel.

Although 90 percent of earthquake deaths occurred in the areas around Port-au-Prince,<sup>4</sup> the Sud-Est department suffered more than 400 dead and 196,670 affected in some way by the earthquake (nearly 40 percent of Sud-Est residents). The number of displaced persons is estimated at more than 50,000, with high estimates of 75,000 to 125,000. For the three communes studied in this report, 7,621 houses were estimated to have been destroyed with another 30,478 damaged.<sup>5</sup> USAID estimates that 50-60 percent of houses in the Jacmel area were destroyed,<sup>6</sup> although in La Vallée and Bainet, fewer buildings appeared damaged. More than 21,000 people in Sud-Est region



<sup>1</sup> Estimates vary.

<sup>2</sup> OCHA map 15 February 2010.

<sup>3</sup> 2009 estimate from ISHI (Haitian Institute of Statistics and Information); other estimates range around 550,000.

<sup>4</sup> Source: Haiti National Risk and Disaster Management System (SNGRD), report 5 March 2010.

<sup>5</sup> Ibid (SNGRD report 5 March 2010).

<sup>6</sup> Map, “USG Humanitarian Assistance to Haiti for the Earthquake.” USAID.

were estimated to be living in spontaneous campgrounds or arrangements other than their normal housing, often because they were afraid to sleep inside for fear of another earthquake. There are relatively few organized camps in the Sud-Est region; the largest is in Pinchinat with an estimated 6,000 inhabitants. A number of NGOs and international agencies are active in the region.

In addition to effects from the earthquake, this region is prone to hurricane damage; the hurricane season is June to November, with most hurricanes occurring in September. The area includes various geo-livelihood zones, including dry agriculture/fishing; agriculture/pastoralism, and humid mountain agriculture in the northern parts of the region.<sup>7</sup> Pre-earthquake, Jacmel was known as a center for the arts and tourism. The organizations that collaborated on this assessment all had ongoing operations in the Sud-Est region, although with different programming specializations.

## **SECTION 2. EMMA METHODOLOGY**

Emergency Market Mapping and Analysis (EMMA) is a rapid market analysis designed to be used in the short-term aftermath of a sudden-onset crisis. Its rationale is that a better understanding of the most critical markets in an emergency situation enables decision makers (donors, NGOs, government, other humanitarian actors) to consider a broader range of responses. It is not intended to replace emergency needs assessments, more thorough household economic analyses such as the Household Economy Analysis (HEA), or full market assessments, but rather adds to the body of knowledge in the post-crisis period by providing timely information about the structure and functioning of key markets in the short term so that immediate programming can be based on market knowledge.

The Sud-Est region EMMA team in Haiti was composed of eight persons, including employees of four agencies (ACDI/VOCA, Save the Children, Diakonie, and CROSE) and two lead analysts contracted by ACDI/VOCA. One team leader was a specialist in enterprise development and microfinance; the other had many years of experience conducting field-level analyses in Haiti. Six of the team members were Haitian; several had experience on past EMMA assessments. One half-day of classroom training was provided; by the second day, the team was in the field. The assessment methodology included study of existing data and previous market analyses; approximately 15 interviews with actors at different stages of the market chain; and several longer interviews with key informants (e.g. agronomists, local government officials).

## **SECTION 3. THE TARGET POPULATION**

The target population for potential interventions is earthquake-affected households in Sud-Est Department. Specifically, the particular target group in Sud-Est is bean consumers (essentially all affected households) with a secondary target group of bean producers (who also constitute a large percentage of households in Sud-Est).

The Sud-Est department includes coastal areas, plains, and mountains and valleys inland. Although the types of crops planted vary according to the terrain, altitude, and irrigation, agriculture and livestock are the major source of income (some 26-55 percent of total income) in one way or another for the large majority of households—either growing, selling or related labor.<sup>8</sup> In coastal areas, fishing is also an important activity.

Main livelihood strategies differ between Jacmel and more rural areas of Sud-Est. In Jacmel, reported primary sources of income were salaried labor (about 20 percent of households), trade, the service industry, and informal labor.<sup>9</sup> In the rest of Sud-Est, agriculture (which includes agricultural labor and selling produce) is the main source of income

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<sup>7</sup> FEWSNET Livelihoods Analysis 2005.

<sup>8</sup> FEWS NET 2010 estimate.

<sup>9</sup> Emergency Food Security Assessment p. 7, citing WFP November 2009 survey.

for the majority of rural households in Sud-Est.<sup>10</sup> Both poorer and wealthier households engage in crop production and livestock raising, the poor are more likely to also engage in labor (either informal or as a skilled laborer).<sup>11</sup> Except for the very poorest, most households either own land or have access to land to work (for example through sharecropping arrangements).

Diverse livelihood strategies are common throughout the area, especially for poorer families, and often cross geographical zones. For example, a business owner in a town in Sud-Est also owns a produce garden in the rural areas. Families often have plots both in the valleys and the mountains to grow different crops. Or in one family, a man will be responsible for crop production while his wife sells their produce and other goods in the market. Many households raise small and large livestock (goats, cattle, pigs), either their own or in a sharecropping-type arrangement.<sup>12</sup> Most families own just one or two cattle and no more than half a dozen goats. In both Jacmel town and rural areas, gender is a major determinant of engagement in different agricultural tasks and labor opportunities.<sup>13</sup>

Regular risks to livelihood security in Sud-Est include hurricanes as well as extensive erosion, deforestation and erratic rainfall, which affect crop production.<sup>14</sup> Main roads connect the eastern and western ends of Sud-Est department (Côtes de Fer and Thiotte) to Port-au-Prince, as well as from Jacmel to the capital. Roads from one area of Sud-Est to the next, however, are often of poor quality and liable to flooding during hurricane season or other blockages. Income tends to be highest from October to December, falling in the first months of the year and lowest in April and May before a June harvest season.

Due to these risks and fluctuations, Sud-Est households employ a variety of coping mechanisms. Households save up in good times (often by buying livestock or investing the money in petty commerce) and spend down their reserves when needed. Producing and selling charcoal is a common fallback strategy; selling or eating livestock is another way to get through lean times. Households also adjust food intake, for example omitting meat and oil, or eating starchy staples such as plantains and yams. Temporary labor migration to other parts of Haiti or to the Dominican Republic is also common. All of these coping strategies were evident in the post-earthquake context.

Sud-Est department (and all of Haiti) is a cash economy, even in remote areas. Even given the prevalence of agriculture, families in all income levels purchase most of their food. This varies by geographic zone, and rural families get more of their food from their own production, but on average Sud-Est residents purchase perhaps two-thirds of their food.<sup>15</sup> The poorest spent nearly three quarters of their income on food.<sup>16</sup> Pre-earthquake, approximately 5 percent of Sud-Est rural households experienced severe food insecurity, while 15 percent were moderately food insecure, compared with national rates of 6 and 19 percent respectively.

Rural incomes vary seasonally and by economic class, but interviewees indicated that pre-earthquake, typical household income was about 100 gourdes (about \$2.50) per working adult per day. Thus, a two-adult household would have daily income of around 200 gourdes or \$5 a day.<sup>17</sup> Median household income in the city of Jacmel is higher—perhaps 350 gourdes per day.

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<sup>10</sup> Emergency Food Security Assessment p. 7, citing World Food Program November 2009 survey.

<sup>11</sup> FEWSNET Haiti Livelihoods Profile 2005.

<sup>12</sup> A disease hit last year that wiped out much of the pig population, hurting rural incomes and savings in livestock.

<sup>13</sup> For a more detailed discussion, see the Haiti Sud-Est agricultural labor EMMA assessment, Apr. 2010.

<sup>14</sup> FEWSNET Haiti Livelihoods Profile 2005.

<sup>15</sup> Emergency Food Security Assessment 2010; FEWSNET Livelihoods Profile 2005; USAID FEWSNET Haiti Crop Production/Consumption Map. A small sample of rural households purchased 20-60% of their food.

<sup>16</sup> Emergency Food Security Assessment, p. 5-6.

<sup>17</sup> Wealthier rural households earn far more – 500 gourdes/working day or more.

**Table 1. Livelihood Analysis, Baseline and Affected (Small Sample)**

Per Month:	Rural		Urban	
	Baseline	Affected	Baseline	Affected
<b>Income</b>	2000-8000 HTG	1000-4000 HTG	6000-9000 HTG	4000-8000 HTG
<b>Expenditures</b>	1500-6000 HTG	800-6000 HTG	5000-7000 HTG	2000-5000 HTG

Approximate exchange: 40 gourdes to the US dollar, 54 gourdes to the euro, and 60 gourdes to the British pound.

Initial estimates indicate that the average drop in income after the earthquake, based on a small sample, ranges from around 20-50 percent.<sup>18</sup> The corresponding drop in expenses is approximately 10-50 percent. This is in part because families are “saving” money by not paying expensive school fees while schools are closed.<sup>19</sup> Health care, usually quite costly, was provided for free in many areas. Some households have seen their expenditures shrink because they do not need to make business investments (e.g. buying clothing for resale) for enterprises that are no longer profitable. Others now spend more on transportation as they look further afield for work. The decrease in food expenditures ranged from 10-45 percent, usually cutting consumption of meat, beans, oil and luxuries. This was offset by increased consumption of one’s own produce—often starchy crops (yams, manioc, millet) and fruits. However, this tendency to forgo proteins is troubling from a long-term nutritional perspective. As the economy recovers, it will be important to ensure that incomes continue to match households’ basic needs.

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<sup>18</sup> Some sectors, of course, have benefited from the ‘relief boom’ – transportation, phone-card sales, NGO work, and some hospitality businesses.

<sup>19</sup> This is obviously in the long run not a savings.

Table 2. Seasonal Calendar for Sud-Est Department, Haiti

	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Rainy Seasons												
Hurricanes/Cyclones						worst						
Hungry Season												
Remittances higher												
Bean Planting	plains			highlands				plains				high
Bean Harvesting		highlands					highlands				plains	
Domestic labor rates highest in the mountains												
Temporary migration to DR for sugar harvest												
Yams, cassava, etc in wet mountainous areas	year - round											
Education/Schooling												
Holidays	Easter								Xmas			

## SECTION 4. CRITICAL MARKET SYSTEMS

Critical market systems are those that “played, play, or could play a major role in ensuring survival and/or protecting livelihoods of the target population” in an emergency context.<sup>20</sup> ACDI/VOCA convened a meeting of agencies active in the Sud-Est region, including Save the Children, Diakonik (a German NGO), CROSE (a regional NGO), Medair, World Food Program, MINUSTAH (the UN Haitian Stabilization Mission), the UN Shelter Cluster, and the Haitian Ministry of Agriculture. In all, 14 markets were proposed, including staple foods such as rice, beans, and plantains; various labor markets; construction tools and materials (cement, etc); and agricultural inputs. These were rated by the degree to which they were affected by the earthquake or the emergency response; the market’s importance to survival or livelihoods; the feasibility of implementing a related response; and agencies’ mandates to intervene in this sector.

Three market systems were prioritized: beans, labor markets, and construction materials. Due to human resource and time limitations, two markets were selected: the beans market and the market for agricultural labor. The geographical area for the assessment was set at the communes of Jacmel, Baintet, and La Vallée. This report addresses the beans market system.

### RATIONALE FOR SELECTION OF BEANS

Beans are an important production and consumption market in Sud-Est and throughout Haiti. They are a nutritious and inexpensive source of protein eaten as a daily staple by nearly all Haitians, but also a source of income for producers across Sud-Est. Therefore, efforts to strengthen or avoid harming the beans market will impact a large number of earthquake-affected households in Sud-Est Department (and elsewhere in Haiti). Black, red, white, yellow/butter beans, *pois congo*, and others are grown in Haiti. Black beans are the most commonly eaten (and the best monitored for price data); red and white beans (which tend to be more expensive) are most preferred.<sup>21</sup> The beans market has been the subject of two previous EMMA studies, a pilot EMMA analysis in 2008 after the hurricanes, and a Port-au-Prince assessment in February 2010 immediately post-earthquake. This assessment builds on the information gathered and attempts to further our knowledge, and provides timely recommendations for intervention.

**Key Analytical Question:** What are the constraints in the beans market preventing the target population’s economic access to beans?

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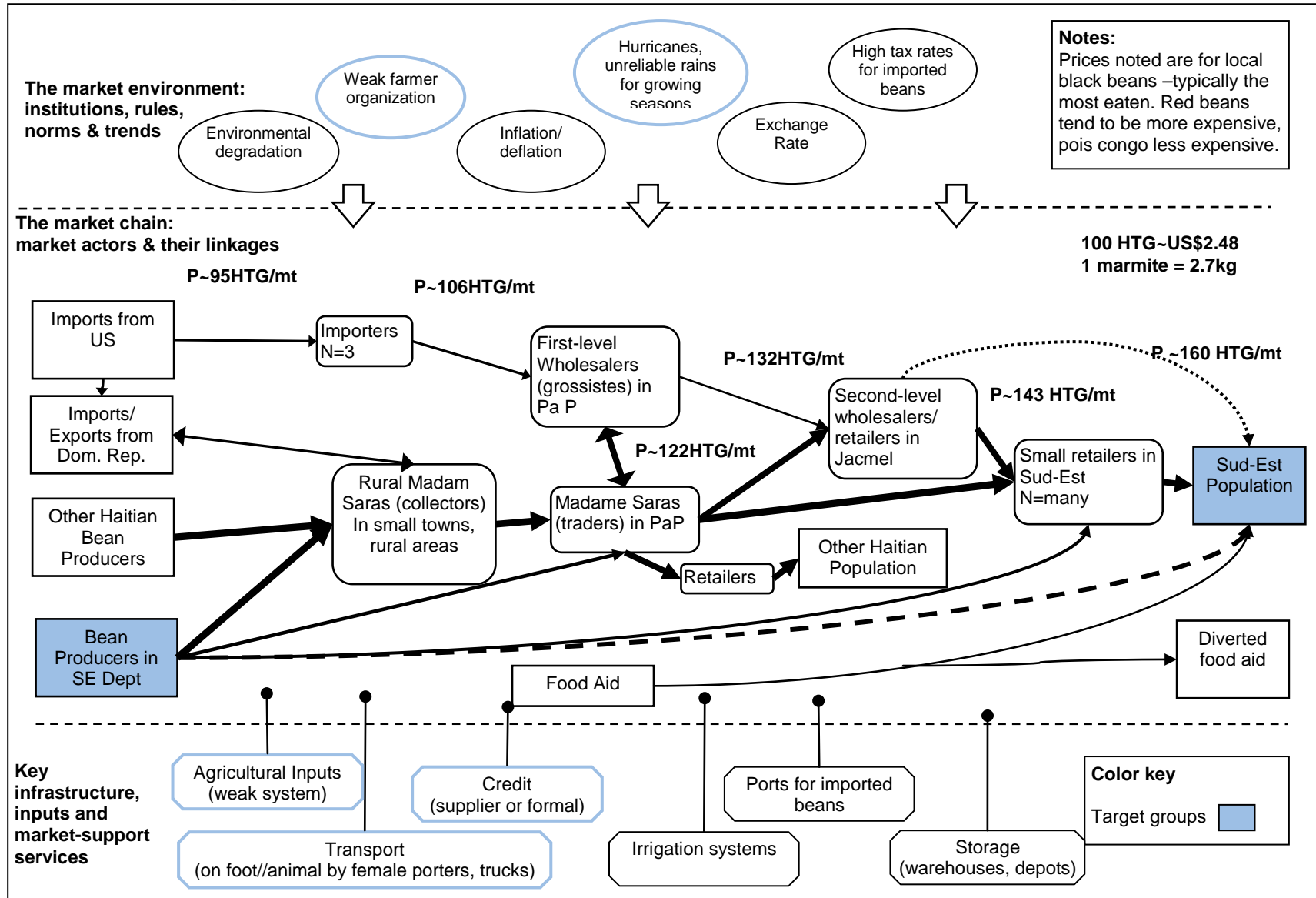
<sup>20</sup> EMMA Toolkit, p. 46.

<sup>21</sup> Port au Prince EMMA beans assessment, Feb. 2010.



## SECTION 6. BEANS MARKET-SYSTEM MAPS

Figure 1. Baseline Market Map



**Table 3. Important Measurements for the Beans Market in Haiti**

<b>Marmite</b>	Measure of volume; approximately what fits in a large coffee can. For dry beans, ~2.7 kg (~6 lb). Approximately 45 ‘servings’ of beans.
<b>Sac/Sack</b>	50 kilogram (110 lb) sack. There are approximately 18 marmites in a sac.
<b>Pôte</b>	Small scoop. 6 or 7 pôtes = 1 marmite
<b>Metric ton</b>	1,000kg / 2,200 lbs

Due to seasonal price fluctuations, the baseline map uses an average of prices over the last five years as a baseline.<sup>22</sup> Prices shortly before the earthquake had been stable for the past six months (since May 2009); however, in March-April 2008 and 2009 prices were ‘abnormally’ high, 200 gourdes/marmite or more, due to global high food prices and a poor harvest from hurricanes. Given that these phenomena unfortunately cannot be considered ‘abnormal’ for Haiti, those prices are included in the average.

### **MARKET ENVIRONMENT**

Although bean farming can be profitable, it causes a high degree of erosion and soil degradation. Both inflation and deflation can be problematic: inflation means that consumers can buy fewer beans, while deflation means farmers earn less. Hurricanes damage bean crops; unreliable rains make it difficult to schedule the planting season. A high tariff (around 30 percent) on imported beans, recently increased, affects beans importers, wholesalers, and larger retailers that specialize in imported beans.

### **BEAN PRODUCERS IN SUD-EST**

Beans are grown in all the departments of Haiti. The Sud Department produces the most (approximately 20 percent of total domestic production) followed by the Sud-Est; other major producing regions include Centre, Arisonite and Grand’Anse departments. Depending on the geographical zone, planting and harvest seasons roughly follow the seasons observed in Sud-Est.

It is estimated that the Sud-Est region produces approximately 15 percent of the national total of beans.<sup>23</sup> Bean planting happens in March-April and July-August for the highlands, and Nov-Dec for the lowlands. Harvests are in February and March for the plains, and June and October-November for the highlands. The *pois congo*, an annual plant, is harvested December to February.<sup>24</sup> In Sud-Est, the June harvest is the largest.<sup>25</sup> Although the exact number of beans producers in Sud-Est is difficult to quantify, the majority of households in the Sud-Est engage in at least some agriculture, and the vast majority of those engaged in production grow at least some beans. Given the diversity of livelihoods, bean producers are sometimes ‘farmers’ who specialize in agriculture, but more often households who work their land and sell some beans.

Around half of the beans grown in Sud-Est are black; the rest are red beans, *pois congo* and others. Different types of beans may be destined for different markets; most red beans grown in this region head to Port-au-Prince as prices are higher, while more black beans stay in Sud-Est for local consumption. According to

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<sup>22</sup> Because price data at the farmer, Sara and wholesaler levels were not monitored for past years, baseline prices for these levels of the market chain were obtained by applying the same percentage differential as was obtained between the pre-earthquake consumer price and the five-year consumer price average. Prices on the map are for black beans in Jacmel; prices in La Vallée and Bainet fluctuate more widely. Red beans tend to be more expensive than black beans, and *pois congo* less expensive. Price data is from FEWS NET and ACDI/VOCA.

<sup>23</sup> FEWS NET/CNSA, December 2008.

<sup>24</sup> 2010 Haiti Port-au-Prince EMMA beans report.

<sup>25</sup> ACDI/VOCA proposal to USAID OFDA.

estimates, more than 700 metric tons per month of beans total are taken from the La Vallée/Bainet area to Port-au-Prince. Many bean producers consume at least some of their own production, or sell it immediately in their own small local markets, indicated on the map with a dotted line.

### **IMPORTS FROM THE U.S. AND THE DOMINICAN REPUBLIC**

Haitian beans are considered superior in quality and taste to imported beans, so imports rise and fall in inverse relation to the supply of domestic beans. Imports normally constitute approximately 10-15 percent of total consumption. Beans are either imported from or exported to the Dominican Republic as supply and demand require. The vast majority of Dominican imports is unofficial and comes through Madam Saras (traders), thus the exact quantity is not known.<sup>26</sup> These imports also include US-origin beans that come through the Dominican Republic for unofficial trade to Haiti.

### **FOOD AID**

Food aid, often from the United States or the World Food Program, has been a part of the Haitian beans market for years. Although not all food aid reaches its intended market, in ‘normal’ times, food aid accounts for perhaps 5 percent of total consumption.<sup>27</sup>

### **IMPORTERS AND WHOLESALERS (GROSSISTES)**

Importers and wholesalers tend to deal largely with imported beans from the U.S. The vast majority of domestic beans go through rural and urban traders (Madam Saras). There are approximately 3 import companies and 50 wholesalers in the beans market.<sup>28</sup> These market actors have the most access to formal warehouses for storage.

### **MADAM SARAS**

“Madam Sara” is the Haitian term for traders (often women, although the term comes from a bird). They are found in many Haitian market systems, though they tend to specialize in just one good. Port-au-Prince, and its main market of Croix-des-Bossales, is the hub for trading beans from all over the country; Madam Saras are therefore the hub of the beans market, forming the link between rural producers and retailers around the country.

Rural Saras buy beans from bean producers. They may have farmers bring the beans to their homes, or they may buy beans at collection markets where women bring beans from their families’ gardens. The rural Saras then take the produce themselves, either on their heads or on animals such as donkeys, to Jacmel (usually to sell on to other, larger Madam Saras) or to Port-au-Prince (which may be a longer journey but where the profit margin is larger). Trips are made around twice per week to Port-au-Prince. Jacmel is considered only a secondary market while Port-au-Prince is the major economic gathering center for the beans market, providing higher profits and faster turnover.<sup>29</sup>

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<sup>26</sup> 2010 Haiti Port-au-Prince EMMA beans report. This amount is estimated to be only a small part of the total beans market.

<sup>27</sup> Source: WFP.

<sup>28</sup> 2010 Haiti Port-au-Prince EMMA beans report.

<sup>29</sup> In Sud-Est, major bean transportation axes go from La Vallée to Port-au-Prince; from Marbial in Jacmel commune through Jacmel city and on to the capital; and from Marigot and Cayes-Jacmel (east of Jacmel) through Jacmel and to Port-au-Prince. Source: “Rural Market Study.” CJ Consultants Group for CNSA.

Urban Madam Saras sell to large and small retailers around the country, and have their own, well-established trade routes, suppliers and customers. Larger-scale Madam Saras can wield a considerable amount of market power, using favors and discounts to retain their client bases and keep others from encroaching on their territory. They are also an important source of informal credit, both to their suppliers (i.e. advancing funds for purchase) and their buyers, the large and small retailers around Haiti. Madam Saras can also smooth supply and generate profit by buying when supply is high and selling later on as the price rises, if their storage is of good quality (although unfortunately quality storage is rare for beans). These larger Madam Saras can usually afford truck transportation and may even employ assistants to make purchases on their behalf.

### **SECOND-LEVEL WHOLESALERS/LARGE RETAILERS IN JACMEL**

Most Sud-Est markets host a large number of small retailers. In Jacmel there are also multiple larger stores, which have proper storefronts and storage space. These second-level wholesalers sell in larger units, usually in 50 kg sacks. These retailers indicated pre-earthquake sales of 10-50 sacks per month. Nearly all sell other staples besides beans (e.g. corn, rice); some specialize in certain types of beans, such as imported. These actors buy almost exclusively from Port-au-Prince so they can buy in bulk, even though beans may be available locally. Their main customers are the many small retailers around Jacmel and the Sud-Est, although they may also sell to consumers who can purchase larger quantities. Some own trucks and go themselves to Port-au-Prince to buy beans there from wholesalers and Madam Saras.

### **SMALL RETAILERS THROUGHOUT SUD-EST**

Southeast Haiti boasts many rural markets; everywhere in the region is within walking distance of one or more markets. Many small beans retailers can be seen in these markets, selling one or more types of beans. These retailers purchase from Madam Saras directly in Port-au-Prince or from the second-level wholesalers in Jacmel. Most retailers sell in small quantities—as little as just one *pôte* or scoop (enough for one family meal), up to a *marmite*. Many of these retailers travel themselves to Port-au-Prince to purchase beans to sell themselves at rural markets. Small retailers might earn a profit of about 16 percent, buying beans from Madam Saras at 7 *pôtes* or scoops to a *marmite*, but selling them at just 6 scoops to the *marmite*.

### **CONSUMERS IN SUD-EST**

Nearly everyone in Haiti eats beans on a regular basis, once a day or even more. Beans are particularly important to lower-income households, as they are a far less expensive source of protein than meat.<sup>30</sup> Although different types of beans are substitution goods for one another, in general black beans are the most purchased and red beans are considered the best (but purchased less often as they tend to be more expensive). Demand is relatively steady through the year; competition is high due to the high numbers of small retailers.

### **KEY SERVICES AND INFRASTRUCTURE**

Agricultural input services, particularly seed sale, are a weak area in the Sud-Est beans market system. Farmers do buy beans from retailers and Saras to plant, but these are usually of low quality. Several NGOs and international agencies were involved in seed distribution or multiplication programs even pre-earthquake;

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<sup>30</sup> The estimated bean consumption for Haiti is 60 grams per person per day; calculations on total bean consumption or demand in Sud-Est are based on this figure.

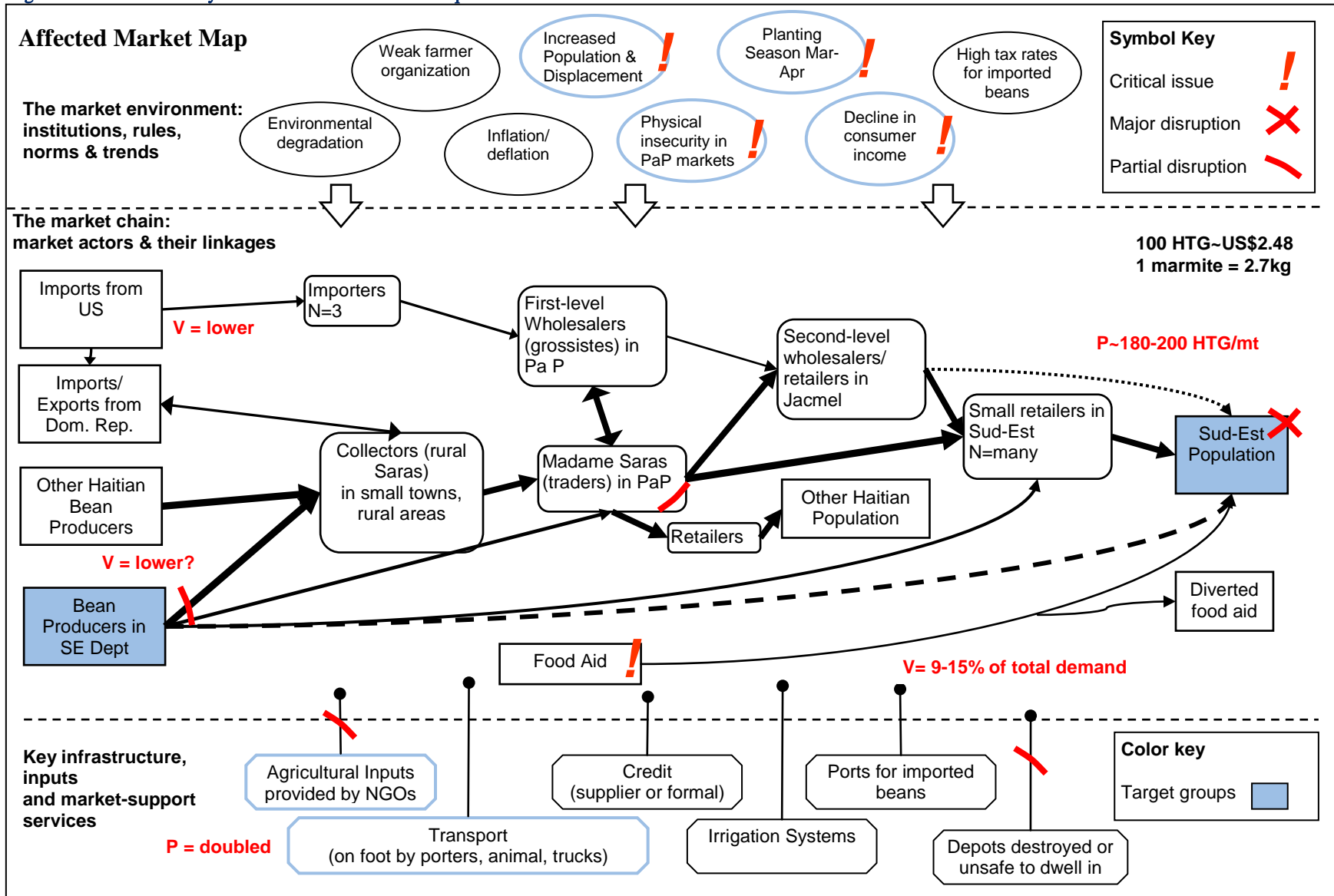
however there is no well-functioning system for agricultural inputs in rural areas.<sup>31</sup> Farmers may conserve seeds for the next season, but in difficult years the seed stocks are likely to be consumed.

Transport is essential to the bean market; much is done on donkeys or horses or carried on women's heads, the rest by truck. Even in the baseline situation, storage tends to be of mediocre quality. Beans are liable to sprout in warm or moist conditions, or get eaten by pests. The smaller storage spaces, called *depots*, used by the Madam Saras are different from the large warehouses used by importers and wholesalers. Often Madam Saras will sleep in their rented *depots* and use this as their base of operations to sell to the large and small retailers. Credit is common, but the vast majority seems to be supplier credit, often from Madam Saras themselves. Larger actors, such as wholesalers, do use bank credit.

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<sup>31</sup> 2008 Haiti EMMA Pilot Beans Market Report.

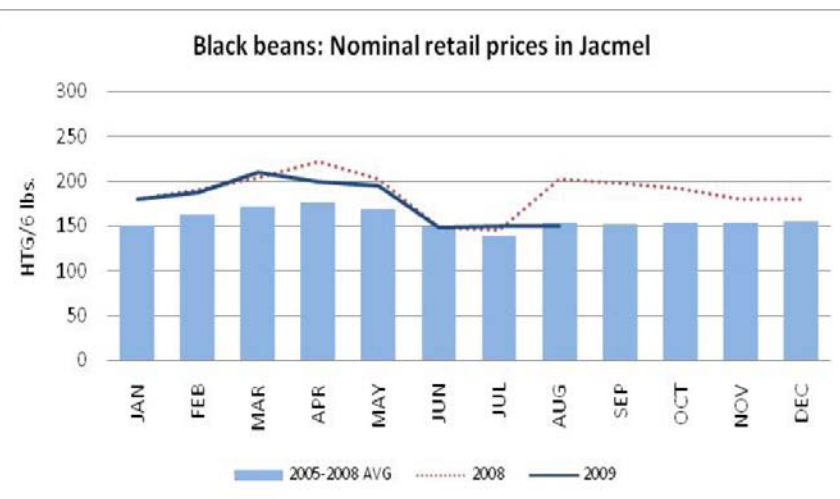
Figure 2. Beans Market System Two Months Post-Earthquake



This market map depicts the major issues in the beans market system that existed at the time of the assessment (March-April 2010). It does not include disruptions to the market that existed immediately after the earthquake (e.g. damage to the Port-au-Prince port) but had been resolved by March 2010.

## BEAN PRICES

Prices for beans have risen in Sud-Est since the earthquake, although as noted in the baseline, prices from March through May tend to be the highest of the calendar year, and therefore this is likely seasonal variation.



(See graph for prices over the past five years). The current black-beans price for Jacmel of 180 gourdes per marmite is higher than pre-earthquake levels, but not above 2008 and 2009 levels. In fact, one larger retailer in Jacmel indicated that he was holding on to the stock he had, hoping the price would rise even further. Despite this, in consumers' perceptions, 180 gourdes per marmite is a 'high' price.<sup>32</sup>

**Figure 3. Chart showing normal price fluctuations throughout the calendar year.**  
Source: CNSA/FEWS NET Price Bulletin September 2009

Those farmers who still have beans to sell are receiving a higher price, from around 900 to 1,200 gourdes for a 50-kg sack of fresh, unshelled beans. Prices for *pois congo* have, by comparison, remained very stable—around 90-100 gourdes per 2.7kg in Jacmel, La Vallée and Bainet both before, during and after the earthquake.<sup>33</sup> This is likely due to the *pois congo*'s longer growing calendar.

## BEAN PRODUCERS IN SUD-EST

At time of fieldwork, the rainy season had not yet begun in earnest. Some farmers in the more humid areas had planted already, but in the lowlands most had not yet begun or were just starting to plant. Farmers cannot plant before there is sufficient rain, or the bean plants will wither and die in the hot sun. It is not known what the 2010 hurricane season will bring, but a major constraint to short-term future production is purchasing power to buy bean seed (see 'Key Services and Infrastructure').

## IMPORTERS AND WHOLESALERS

Imports from the U.S. fell significantly and have not yet returned to pre-earthquake levels. This appears to be largely a demand problem; imported beans traders tend to blame food aid. Although immediately post-earthquake there were major logistical disruptions to the imported supply chain (e.g. damage to the port and warehouses; use by international organizations), these seem to have been mostly corrected.

<sup>32</sup> A 5-person household that has not cut back on consumption is paying \$.68 cents more per week for black beans than they did before the earthquake.

<sup>33</sup> Source: ACIDI/VOCA price monitoring.

## **MADAM SARAS**

The biggest problem for Madam Saras is the continuing unsafe conditions in Port-au-Prince. Theft or personal danger in Croix-des-Bossales market is a real risk. Many Saras previously slept in their *depots* or in friends' homes, which are now destroyed or damaged, or deemed too dangerous to stay in for fear of future earthquakes. Some of these storage facilities have been rebuilt, but others have not. This leaves Madam Saras without safe lodging or storage. As a result, many traders limit purchases to what they can sell in the day; the supply chain still functions, but is constricted.<sup>34</sup>

## **SECOND-LEVEL WHOLESALERS/RETAILERS IN JACMEL**

Wholesalers and larger retailers in Jacmel indicated a downturn in business of approximately 25-35 percent. Most retailers had decreased their stock to the low end of 'normal' levels. One wholesaler who specialized in imported beans used to sell approximately 50 sacks (250 kg) per month and was now selling approximately half of that. Similarly, he has let his stock dwindle from 50 sacks to 25. Another large retailer used to have as many as 100 sacks in stock, and now only holds 10, although she said she could get stock quickly if demand were to rise.

One imported beans retailer's profit margin used to be around 10 percent after transport expenses. Due to high prices in Port-au-Prince and transport costs, she could now only make a 1-2 percent profit margin, and cannot set prices higher due to competition. As a result she has all but stopped selling beans and now sells other staple foods. Second-level wholesalers who used to travel themselves to Port-au-Prince no longer wish to do so, because of the insecurity at Croix-des-Bossales market.

## **SMALLER RETAILERS IN SUD-EST**

Across the board, small retailers in Jacmel, La Vallée and Baintet communes report that business is down post-earthquake. Businesses that used to sell two to four sacks a month now just sell one or two. Many women who sell beans roadside at markets have current sales levels of around 5-10 marmites (13-27 kg) per month, which they characterize as less than pre-earthquake levels, although it is difficult to quantify the exact decrease. Most small retailers have low-overhead operations and do not normally keep large amounts of stock; many said they kept a maximum of one sack (50 kg) of beans post-earthquake. As with larger retailers and Madam Saras, transportation and personal safety is a problem, as traveling to Port-au-Prince is considered quite dangerous given conditions at Croix-des-Bossales and the lack of lodging.

Many retailers reported that it took longer to restock now than before (likely due to road conditions) but that they would have no difficulty acquiring sufficient stock—as many as five sacks' worth—from their contacts in various parts of the region. Many felt that in the middle part of Sud-Est, from Baintet to Cayes-Jacmel, there was sufficient supply of beans; indeed, that due to lack of purchasing power supply outstripped demand. One retailer in La Vallée said that there were plenty of beans for purchase, but that she could not afford to purchase more than a little at a time, even with supplier credit. From personal observation, all markets visited appeared to have an ample supply of beans and a large number of retailers.

Again, it is important to note that price fluctuations are largely seasonal and not earthquake-related, and that an increase in price always causes some drop in demand. However, retailers seemed to feel this demand decrease was largely due to consumers' lack of income, and perhaps, to increased food aid (see next two sections).

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<sup>34</sup> Port-au-Prince beans EMMA assessment, Feb. 2010.



## FOOD AID AND DISTRIBUTION

In the weeks following the earthquake, food aid to Haiti increased greatly. Although initial food aid in Port-au-Prince did not include pulses, there have been considerable amounts of beans and other substitution pulses distributed as food aid in Sud-Est. The humanitarian community has agreed that March 31 would be the last day of general relief provisioning; starting in April more targeted forms of assistance will be provided (e.g. to schools and hospitals; through food-for-work). However, retailers and farmers do not seem to know or believe this.

Pulses (yellow peas/butter beans or black beans) have been part of post-earthquake emergency food rations carried out January-March 2010 in Sud-Est, including in the three communes examined in this study. These include World Food Program (WFP) and partner organizations in Jacmel and ACIDI/VOCA in La Vallée and Bainet.

The exact total is difficult to quantify, however the EMMA team tallied several major sources:

- ACIDI/VOCA provided 20,407 metric tons of pulses in La Vallée and Bainet over one month, equaling some 10 percent of normal demand or 9 percent of total demand including increased population from those coming from Port-au-Prince.<sup>35</sup>
- WFP estimated it had distributed approximately 150 metric tons of beans (imported) across Sud-Est since the earthquake, which depending on post-earthquake population estimates is perhaps 6-7 percent of total normal demand.<sup>36</sup>
- Across all of Haiti, Oxfam gave out 10,000 food packages including an estimated 24 tons of black beans, mostly sourced directly from farmers, including a March 19 distribution in Jacmel.<sup>37</sup>

In areas with distribution by both organizations such as La Vallée and Bainet, therefore, food aid might cover 15 percent or more of total normal demand. Less well documented, however, are the food aid rations and meals given out by the many smaller NGOs and mission groups currently active in Haiti. Although each group alone distributes a very small amount of food relative to total demand, together they may total a considerable amount, particularly in Jacmel city where many aid groups are located.

Local-procurement food distributions are not well documented, but represent at least some of this aid. Oxfam recently released a press release that it was buying directly from farmers; others reported seeing smaller NGOs or church-based groups buying beans in bulk from farmers or wholesalers. These groups may be buying food in Port-au-Prince or from Jacmel wholesalers to distribute as rations or in cooked meals.

Perhaps half of the retailers and second-level wholesalers surveyed felt that the increased food aid had something to do with their diminished sales. On a positive note, one large retailer credited food distributions with a lower theft rate. One extension agent felt that food distributions have kept prices lower than they would otherwise be this time of year.

## BEANS CONSUMERS IN SUD-EST

“People don’t have money” was the most common response from retailers questioned about the drop in demand. Many of the consumers surveyed confirmed that they were buying fewer beans now than before the earthquake. This mirrors similar consumption adaptation strategies seen after the 2008 hurricanes, when households reported a 50 percent decrease in consumption of beans, and traders noted a sharp drop in

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<sup>35</sup> ACIDI/VOCA distribution records. Food rations consisted of vegetable oil, soy fortified bulgur and yellow peas.

<sup>36</sup> WFP staffer.

<sup>37</sup> Oxfam press release, 24 March 2010, posted on [www.reliefweb.int](http://www.reliefweb.int).

demand.<sup>38</sup> Many bean distributions were in large units—either a sack or half of a sack (25-50 kg), which means that some customers will not need to buy beans for weeks or months, unless they have sold off their surplus. Several people surveyed in Cyvadier neighborhood, on the east side of Jacmel, reported that they used to buy several marmites a month each, but since receiving a sack, have not bought any. Other households still buy, but in smaller quantities. Those who have not received food aid reduce their consumption, or go to *cantines populaires* and buy a plate of food for five gourdes.

Discussions with rural families indicates that those who did not receive food aid may be decreasing their consumption of beans and other purchased goods, and eating more of their own production, particularly inexpensive, filling foods such as yams and plantains. However, because of beans' importance as a staple protein, this tendency to replace beans with starchy tubers is troubling from a nutritional perspective.

### **KEY SERVICES**

The agricultural inputs system, already weak pre-earthquake, is compounded by farmers' lack of income. Farmers may conserve local beans to replant the following year, but many households do not normally do this. Of those that did, many have already eaten their seed stock.<sup>39</sup> Madam Saras are also *de facto* seed traders of a sort, bringing beans from other regions that farmers then plant; however these are not selected or certified in any way.

Bean seed distribution has also been a facet of the humanitarian response; this was ongoing even before the earthquake. The United National Food and Agriculture Organization (FAO) distributed bean seeds in all three communes studied; ACIDI/VOCA is carrying out seed loan projects where farmers receive seeds, plant them and pay back the same quantity for the next season.<sup>40</sup> This includes a black bean seed variety that is higher yielding and resistant to fungus endemic in this region. In La Vallée, one key informant stated that 10 to 14 sacks (500-700 kg) of seeds had been distributed, although he did not feel this was a particularly large amount. ACIDI/VOCA reported that in March 2010 it distributed 20 metric tons of seed.

In the nearby Southern department, a study conducted by Catholic Relief Services found that farmers are reducing fertilizer, planting more short-maturity crops, and planting fewer bean plants, as bean seeds are more expensive than maize/corn.<sup>41</sup> The *chef de zone* of one area in La Vallée estimated that perhaps only 15-20 percent of people in his zone can still plant beans this season, as the rest ate their seed socks and cannot afford to buy sufficient bean seed. If not addressed immediately, this may lead to a smaller-than-normal harvest.

As noted earlier, storage and lodging services for Madam Saras in Port-au-Prince have been disrupted. Prices for storage have risen by about 50 to 100 gourdes. Farm irrigation systems not already damaged in the 2008 hurricanes may have been damaged in the earthquake. Although many road blockages have been fixed, some farmers in the highlands report that fewer trucks can make it up to the mountains to take crops to Port-au-Prince. Multiple traders reported that transport costs had increased from approximately 5 to 10 gourdes per marmite (about \$4.50 for every 50-kg sac they bought). Additionally, gas shortages are pervasive in the region, affecting transportation by truck.

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<sup>38</sup> 2008 EMMA Haiti Beans Pilot Report.

<sup>39</sup> ESFA, p. 14.

<sup>40</sup> Source: OCHA Situation Report #29, 15 March 2010.

<sup>41</sup> OCHA situation report.

## SECTION 7. KEY FINDINGS: GAP AND MARKET ANALYSIS RESULTS

### KEY ANALYTICAL QUESTION

What are the constraints in the beans market that are preventing the target population's access to beans?

- A demand failure is the major constraint in the beans market in Sud-Est. Household income has declined post-earthquake, and one coping strategy is to purchase fewer beans.
- If farmers are not able to access seeds and gather sufficient labor, families that previously planted beans may switch to less expensive crops, shrinking domestic supply and increasing imports. This could lead to smaller harvests and shrunken incomes for bean growers, as well as price increases.
- Unsafe storage facilities and insecurity in Croix-des-Bossales in Port-au-Prince need to be addressed, however supply seems adequate in end markets; therefore this is not the key constraint in the market.
- Food aid has doubled or tripled in some areas of Sud-Est and may be responsible for part of the demand failure. However, households' drop in income is the stronger influence.

Table 4. Gap Analysis of Beans Demand

Gap Analysis: Total Beans Demand Per Month in Sud-Est, Pre-and Post-Earthquake			
	Population	Daily Consumption	Total Need (P * D * 30 days)
Pre-Earthquake	550,000 – 575,000	60 g / person/ day	990 – 1,035 metric tons
Post-Earthquake	600,000 – 625,000	40-60 g/person/day	720-750 MT current (?) 1080-1125 MT at normal consumption levels

\*Estimates of Sud-Est post-earthquake population (and the number of IDPs still remaining in Sud-Est) vary. With a 2009 population of as many as 575,000 people and 50,000 IDPs this would equal 625,000.

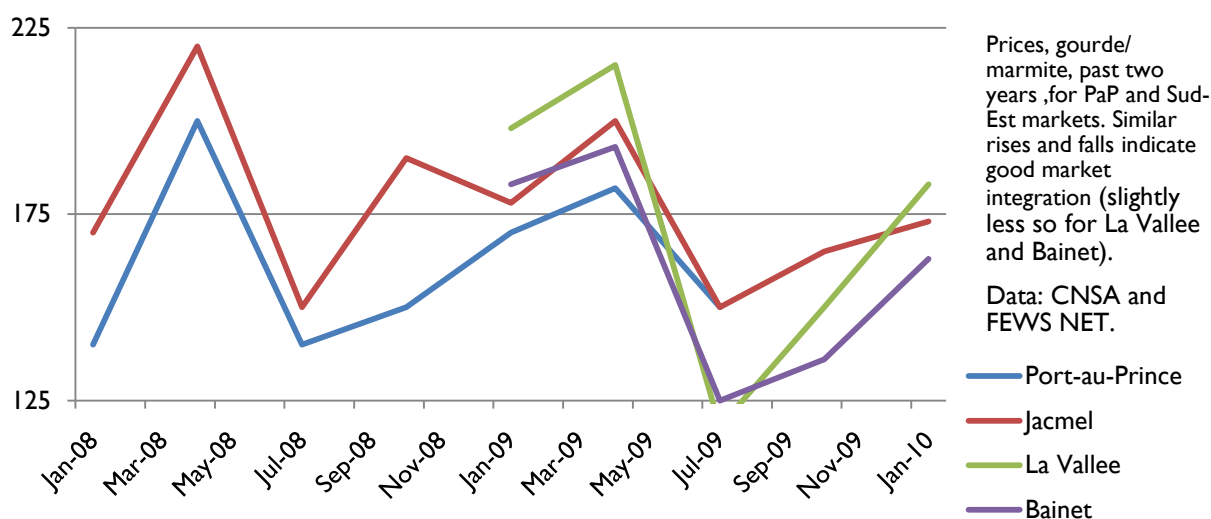
### MARKET ANALYSIS: PAST, PRESENT AND FUTURE PERFORMANCE

Before the earthquake, the beans market functioned relatively well. Although there were issues of market power (particularly at the level of urban Madam Saras) and inefficiency, in general farmers were able to grow beans profitably and families could purchase them in sufficient quantity. At this stage post-earthquake, as described above, partial blockages or problems have emerged, including lack of purchasing power for seeds, a lack of storage and safe lodging for urban Saras, increased transportation costs, increased food aid, and decreased demand among Sud-Est households. Although there may be a small supply decrease currently, this appears to be seasonal. If farmers can access seeds, and if the rains this year are sufficient, domestic production should be able to maintain its majority share in national consumption.

If demand were stimulated, supply should be able to increase (given reasonable lead time) to meet it. There were no obvious shortages in the market, and demand has declined rather than fallen off completely. Nearly all retailers and wholesalers interviewed said they could increase their stocks to pre-earthquake levels or higher if their sales were to increase. Given the very large number of retailers, this demand increase should not overwhelm any one market actor.

Market integration is good between most end markets and the capital; Port-au-Prince's role as a national exchange point for beans from all over the country means that prices in rural markets tend to rise and fall

roughly in concert with prices in Port-au-Prince.<sup>42</sup> Price relationships are a good indication that supply should flow relatively smoothly from production regions to Port-au-Prince and into Sud-Est if demand increases.



#### FOR FURTHER STUDY

Several questions are beyond the scope of this assessment but are important, particularly for longer-term intervention options:

- The creation or improvement of agricultural financial services and their possible impact on the beans market
- The environmental impact of bean cultivation and possible ways to address this as a longer-term disaster risk reduction measure
- Market power issues, particularly among urban Madam Saras, and barriers to entry
- The exact size and relative importance of the Haiti/Dominican Republic beans trade

## SECTION 8. MAIN RECOMMENDATIONS AND CONCLUSIONS

Given the findings, the EMMA team concludes that *despite constraints, the beans market system in Sud-Est is not broken and could function sufficiently if demand were stimulated. However, ensuring access to seeds and inputs for a normal growing season is critical.* Complementary interventions to address other constraints at the producer and Madam Sara level, including longer-term interventions, can help to strengthen the bean chain and make it less susceptible to future disasters. The vast majority of interviewees indicated a preference for cash-based assistance, bolstering this report’s conclusion that a demand-side intervention can help to improve beans market functioning.

<sup>42</sup> Market integration from one end-market to another, on the other hand, is poor: Madam Saras’ strong relationships with retailers mean that once beans arrive in a given region for purchase, they are highly unlikely to be moved to a different consumer market even if prices are higher in the other market.

The EMMA team proposes the following actions:

- Scaling back beans food distribution (as many humanitarian agencies have already done or plans to do) to minimal levels (e.g. for hospitals), and transitioning to local procurement for the remaining distributions (as far along the market chain as possible, i.e. retailers or second-level wholesalers).
- If not already done, agencies that have been engaging in general food distributions should publicize the end of general distributions to retailers, e.g. via radio.
- A mix of unconditional cash transfers (for the most vulnerable) paired with cash-for-work (timed and structured so as not to harm the agricultural labor market; see April 2010 Agricultural Labor Market EMMA Report) with the express purpose of increasing households' buying power in the short term (3-12 months) as they restart livelihoods. This will need a clear exit/transition strategy and monitoring of non-cash-project income levels will be critical. Injecting cash into the economy should help to jump-start the selling and trading that drives much of the Haitian economy – thereby helping to revive livelihoods.
- In the immediate term, distributing quality seeds known to be effective in Sud-Est agro-ecological zones. This includes the continuation or scale-up of existing seed replication/seed loan programs that work with producer associations to help them function as commercial seed producers and sellers.<sup>43</sup>
- In the longer term, laying the foundation for a functioning private-sector seed system, e.g. supporting producer associations to function as commercial seed producers and sellers.
- Stimulation of existing financial institutions, or establishment of new facilities, to provide financial services appropriate for agriculture (including credit, insurance, etc).
- Working with Port-au-Prince authorities and MINUSTAH to improve security in Croix-de-Bossales.
- Preparation for disaster risk reduction measures, such as improved storage and preservation of surplus harvests, should the 2010 hurricane season (June through November and particularly September) or other future disasters again damage markets or disrupt the supply chain.

For the full table of response recommendations please see Annex 1.

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<sup>43</sup> An alternative is to distribute cash grants to bean producers to help cover the costs of inputs and land preparation. However, this has drawbacks in terms of targeting or diverted use of cash, and may not be the most effective tool for ensuring that farmers plant sufficient beans this season, especially given the short timeline for planting at this time.

## ANNEX I. RESPONSE RECOMMENDATIONS TABLE

Response Activities	Key Risks and Assumptions	Timing Issues	Likely Effect on Market System and Target Groups	Possible Indicators
Scale back beans food distribution to minimal levels (e.g. for hospitals), and transitioning to local procurement for the remaining distributions .	Assumes that farmers and others will not be overwhelmed by shift to local purchase. Needs transition schedule.	Begin immediately at a small level and phase up as supply contracts are signed.	Will stimulate market chain, especially if purchases made at retailer level.  Will continue food availability for most vulnerable households.	Quantity of food distribution month-over-month as compared to baseline levels.  Percent of beans purchase made at local level.
If not already done, publicize the March 31 “surge” end date to retailers.	Must manage carefully as population (or local political authorities) likely to have strong negative reaction.	Begin immediately.	For retailers and producers, can serve as a signal not to slow down production or under-plant. Possible high negative reaction from consumers or others.	Percent of retailers and farmers who know about and believe status of food distributions
Unconditional cash transfers for the most vulnerable.	Careful and transparent targeting criteria. Need a clear exit/transition strategy.	Next 3-12 months.	Should reinvigorate demand among beans consumers, improving food security for target population (both producers and consumers).	-HH income levels, trending towards normal -Prices of beans through harvest season (and other staples)
Cash-for-work (timed and structured so as not to harm planting/harvest activities)*.	Careful, transparent targeting criteria. Activities selected with community support. Wage rates must not exceed customary wages.	Next 3-12 months. Plan timing to not draw away from planting and harvest.	Along with cash transfers, should meet gap in lost income, improving demand among beans consumers and thereby strengthening the beans market chain.	Number of beneficiaries; amount of wages paid; monitoring of prices and quantities for beans and other staples over next 3-12 months.
Distributing (continuing distribution of) quality bean seeds.	Need to target growers who cannot otherwise afford bean seed.	Must happen immediately to have effect.	Will ensure farmer access to seeds for this planting season. Does not address long-term seed access issues or stimulate private-sector involvement.	Quantity of seeds distributed as percentage of estimated unmet need for seeds.

Facilitating the establishment of a private-sector seed market system for quality seeds.	Need to further study environment and services needed and identify market actors crowded out by new seed traders (e.g. Madam Saras who sell low-quality grain as seed). Even if this is desired, resentment from cutting out market actors needs to be addressed.	Several years, no immediate benefits.	Can be foundation for functioning agro-input supply market. If well designed, can strengthen multiple agricultural value chains.	Availability of different types of quality or certified seeds. Increasing usage of seed purchase or exchange by bean growers.
Stimulation of existing financial institutions, or establishment of new facilities, to provide agricultural finance (credit, insurance).	Requires closer examination of financial landscape in Haiti and possible product offerings.	Can begin in next several months, longer-term effects (several years).	In the long term, can provide farmers with income to meet input-purchase needs, indirectly smoothing consumption patterns. If linked with agricultural-input interventions can have a strong beneficial effect.	Establishment of institutions or partnerships; new financial products launched; client numbers
Improving security in Croix-des-Bossales.	Requires collaboration with local authorities, MINUSTAH.	Depends on authorities' and MINUSTAH's capacity and priorities.	Will ease bottlenecks in supply, which ensures smooth movement along the chain if demand is stimulated. (Does not on its own stimulate demand.)	Percentage of surveyed porters/Saras who report security is improved; increased behaviors of keeping inventory overnight.
Disaster-risk-reduction responses	Possibilities include helping farmers or Saras conserve surplus harvest (storage, preservation); examination of likely effects of hurricanes on the market and identifying responses.	As soon as possible, but longer-term impacts. Hurricane season starts June but worst in September.	Can help beans market chain (and other agricultural market chains) mitigate effects of disaster.	Potential: 2010 bean harvest size relative to past years.  Bean price trends Jun-Dec 2010.

\* For more information on cash-for-work and agricultural labor, see the EMMA Report on the Agricultural Labor Market in Sud-Est Department, Haiti, April 2010.

## **ANNEX 2. RESOURCES USED**

ACDI/VOCA Emergency Food Distribution data, March 23, 2010 (internal document).

Dixon, Sam and Julius Holt. "Port-Au-Prince Urban Baseline: An Assessment of Food and Livelihood Security in Port-au-Prince." USAID FEWS NET, April-May 2009.

FAO Seed Distribution Map, 13 March 2010. Downloaded from:

<http://www.reliefweb.int/rw/rwb.nsf/db900SID/AHAA-83LQ4D?OpenDocument&rc=2&emid=EQ-2010-000009-HTI>

FEWSNET/CNSA Haiti Food Security Update no. 38, Feb. 2009:

[http://fews.net/docs/Publications/haiti\\_2009\\_02%20final%20eng.pdf](http://fews.net/docs/Publications/haiti_2009_02%20final%20eng.pdf)

FEWSNET/CNSA Haiti Food Security Update no. 42, Sept. 2009:

[http://fews.net/docs/Publications/Haiti\\_FSU\\_September\\_2009\\_final\\_English.pdf](http://fews.net/docs/Publications/Haiti_FSU_September_2009_final_English.pdf)

FEWSNET/CNSA Haiti Food Security Update Feb. 2010.

[www.fews.net/docs/Publications/Haiti\\_FSU\\_Feb\\_10\\_final\\_en.pdf](http://www.fews.net/docs/Publications/Haiti_FSU_Feb_10_final_en.pdf)

FEWS NET weekly price update website, March 18, 2010:

[http://www.fews.net/docs/Publications/Haiti\\_Urban\\_Price\\_Update\\_03\\_18\\_10.pdf](http://www.fews.net/docs/Publications/Haiti_Urban_Price_Update_03_18_10.pdf)

Haiti Earthquake Situation Report #29 and 30. UN Office for the Coordination of Humanitarian Affairs (OCHA). March 15 and 19, 2010.

"Haiti: Price Update for Port-au-Prince and Jacmel." March 18, 2010. USAID FEWS NET and CNSA.

Letang, Gardy. "Cadrage Socio-Economique du Département du Sud-Est d'Haiti." May 2008.

"Livelihood Profiles in Haiti." September 2005. USAID Famine Early Warning System (FEWS NET) in collaboration with CNSA et al.

"The Market System for Beans in Haiti" (EMMA Report), February 2010. IRC, American Red Cross, Haitian Red Cross, International Federation of the Red Cross, Save the Children, Mercy Corps

"Rapid Emergency Food Security Assessment in Haiti." (ESFA) March 2010. CNSA in conjunction with World Food Program, Oxfam, FAO, ACF and FEWS NET.

"Recommendations on Post-Earthquake Rural Assessment and Monitoring," USAID FEWS NET, 2010.

"Rural Market Study." CJ Consultants Group for CNSA. No date.

Interviews with two large retailers/second level wholesalers, Jacmel market, 3/22/10

Interviews with two small beans retailers, Jacmel market, 3/22/10

Interview with mid-size dry goods retailer, Jacmel market, 3/23/10

Interview with mid-size beans retailer, Jacmel market, 3/23/10

Interview with wholesaler, Jacmel market, 3/24/10



Interviews with mid-size beans retailers, Jacmel market, 3/24/10

Interview with chef du Zone, La Vallée, 3/26/10

Interview with restaurant owner/key informant, Baintet, 3/26/10

Interviews with four small beans retailers, Baintet-Blockhauss market, 3/26/10

Interviews with multiple small beans retailers, La Vallée Ridorée market, 3/26/10

Interviews with two beans farmers, 3/30/10

Interviews with seven individuals/households in Jacmel, 3/26/10 – 3/30/10.

Email questionnaire to small relief NGO, Jacmel, 3/30/10

Phone interviews with two imported beans distributors, Port-au-Prince, 4/21/10

Interviews with six households in rural Sud-Est, 4/20/10-4/21/10.

Informal interviews/group discussions with NGO staff including agronomists and livelihoods experts:

- Gerry Delphin, ACDI/VOCA
- Emmet Murphy, ACDI/VOCA
- Kara Gaye, ACDI/VOCA
- Colo Marie Rosemonde, ACDI/VOCA
- Molière Peronneau, Save the Children
- Pierre-Louis Georges, ACDI/VOCA
- Jude Pierre Marie Basquiat, ACDI/VOCA
- Gardy Letang, Diakonie
- Gary Bonhomme, CROSE
- Multiple staff, World Food Program