Multiple successive shocks accelerating a deterioration in food security

KEY MESSAGES

- Following a series of different shocks to crop production country-wide since June, food security is steadily deteriorating more quickly than expected. Crop losses and ensuing losses of seasonal income and savings have propelled what are normally minimally food-insecure areas into IPC Phase 2 (stressed).

- Damage caused by Hurricane Sandy in late October could heighten food insecurity levels in certain departments like the Southeast and the West. A number of communes, particularly Pointe Raquette and Bainet in the country’s Western and Southeastern Departments, respectively, could be facing crisis levels of food insecurity (IPC Phase 3) between January and March of next year.

- Staple food prices are unusually high in the aftermath of these shocks, which have caused a decrease in crop production. This is especially hard on poor rural and urban households dependent on market purchase for their food needs. October prices for certain staples such as beans, for example, were already up by 40 percent from July.

STANDARD SEASONAL CALENDAR

National overview

Current situation
Currently, food security in most of the country is shaped by the residual effects of different shocks on local households. The progress of both the spring and fall growing seasons was disrupted by various storms and weather hazards, particularly in the Southeast (La Vallée and Bainet), the Northwest (Bombardopolis and Baie de Héne), the North (Ranquite and Bahon), the Northeast (Mombin Crochu and Caracol), and all across the Southern Peninsula in the aftermath of Hurricane Sandy.
The impact of these shocks on crop production, seasonal income, and savings has significantly increased the size of the country’s food-insecure population since September. The result has been a rapid deterioration in food access for poor rural and urban households, the groups hardest hit by the combined effects of these different factors, outlined below:

- An early dry spell in May and June disrupted the spring growing season in most of the country. This season normally accounts for 60 percent of nationwide output in July and August, upon which poor households are highly dependent for close to 20 percent of their food requirements between July and October. The CNSA estimates losses of spring staple food crops (corn, sorghum, rice, pulses, and bananas) at 40 percent compared to the previous year. The most severely affected areas were the Southeast, certain parts of the Western and Central departments, the upper Artibonite, the Northwest, the North, and Northeast.

- A second dry spell between August and September reduced the size of cropping areas for the fall growing season beginning in August and ending in December. This growing season is typically critical for sorghum, pigeon pea, bean, and sweet potato production, which provide poor households with most of their food needs between December and February. The areas hardest hit by water shortages in August and September were the Western Department, the upper Artibonite, and the northern part of the country.

- Hurricane Isaac, which impacted the country in October, caused extensive damage to crops in the Southeast and the West, the same areas affected by the spring and summer droughts. The storm was especially devastating for banana plantations, fruit trees, pulses, and bean crops. The CNSA estimates crop losses in these areas at between 40 and 80 percent, depending on the specific crop and area in question.

- Hurricane Sandy, which struck the country’s Southern Peninsula later in October, caused severe damage to that part of the country, which is considered its most productive area and was the area least affected by drought conditions this year. The hardest hit crops were bananas, pigeon peas, sorghum, pulses, and beans currently in the harvesting phase in humid mountain areas. In addition, the resulting damage to local roads is slowing the flow of supplies into affected areas.

- Increases in international market prices for staple foodstuffs have also affected food access in Haiti. All markets are reporting hikes in the price of imported rice and corn, both of which are widely consumed.

These different recurring shocks are not only limiting food availability but are also leading to rapid depletion of productive assets among Haitian farmers. Many poor households have lost livestock to these droughts and storms, which is their primary form of savings. There has been a sharp decline in demand for farm labor and, in certain areas like La Gonâve, daily wage rates are down and wage income is rare with large cutbacks in agricultural activities. In short, the supply of labor exceeds demand and ongoing and upcoming harvests in many areas are too small to absorb the excess. The August and September drought limited investments in the fall growing season, particularly in the North, the Northeast, certain parts of...
the West, and the upper Artibonite. Poor rural households dependent on gainful employment during this cropping period for over 50 percent of their income will need to look for other sources of income to make up for their loss of potential earnings due to the low demand for labor. Poor farming households dependent on their harvests as a source of both food and income have already completely depleted their food reserves.

These constraints affecting crop production have been driving up staple food prices since August. The steady rise in prices through the end of October has made it increasingly difficult for poor households to maintain their food access. The magnitude of these unusual and virtually across-the-board hikes in food prices varies from one part of the country to another. The price of imported rice, for example, is up by anywhere from six to ten percent from August on all domestic markets, while the price of black beans jumped by 17 percent in Cap-Haitien and by 40 percent in Hinche between July and October. Market supplies of locally grown crops have sharply diminished, increasing the prevalence of imports, whose prices are also rising. These price increases are eroding the purchasing power of local households who are largely dependent on market-buying for their food supplies.

Assumptions
The most likely food security scenario for the period from October 2012 through March 2013 is based on the following general assumptions:

- Forecasts by the International Research Institute for Climate and Society and NOAA for the period from October through December predict a normal pattern of rainfall for that three-month period which, if it materializes and added to the heavy downpours accompanying Hurricane Sandy, should improve the growth and development of maturing crops and replenish underground watershed resources for irrigation schemes.
- Availability of local food crops will be lower than normal on all domestic markets due to the large losses reported in all parts of the country, particularly in the North, the Northeast, the Northwest, and the Nippes area. This will increase the prices of local crops such as beans, bananas, and corn on all markets as of October, making them less affordable for poor households.
- Sorghum and pigeon pea harvests between November and January in all parts of the country will be less than usual due to the dry spells in August and September and the two hurricanes. Pigeon peas are a widely consumed staple food, particularly during the holiday season.
- Farmers in the Northeast are facing drought-induced pest infestations of rice and groundnut crops. Drought conditions are conducive to the proliferation of certain types of crop pests, against which farmers have no treatment measures. This will impact the fall harvest.
- The government will continue to subsidize the price of chemical fertilizer throughout the outlook period. These subsidies will ensure better access to fertilizer in irrigation schemes for the growing of rice, beans, and market garden crops between November and next March. However, the base price of fertilizer has already more than doubled since 2010 which, even with the 45 percent government subsidy, could make this input unaffordable for small farmers. Subsidies will be crucial for crop production in parts of the Les Cayes Plain, the Artibonite Valley, St Raphael, and certain humid mountain areas like Kenskoff and Forêt des Pins also affected by the drought or by flooding problems.
- After the failure of their last two harvests, farmers have much fewer resources with which to buy inputs and pay for labor. The lower than usual demand for farm labor between October and next March will mean fewer available jobs for poor households more dependent on market-buying.
- There will be smaller market supplies of local food crops, resulting in an increase in the volume of food imports to compensate for the production deficit.
- The Northern, Artibonite, Western, Southern, and Southeastern departments will be vulnerable to potential flooding problems in October and November, which are a common occurrence at that time of year. Should they materialize, these shocks will trigger losses of livestock, localized damage to homes and farm infrastructure, and new health risks.
- Obligatory household spending will increase in December with the year-end holiday season, rapidly depleting the productive assets of poor households.
- There will be a sharp increase in foreign remittances to Haiti in December with the year-end holiday season, as is oftentimes the case at that time of year.
- The volume of imports will increase between October and next March to offset crop losses from the drought and the hurricanes, which could stabilize the prices of imports.
- The Haitian gourde will grow steadily weaker throughout the outlook period. The gourde is depreciating at a much faster rate this year than in 2010 or 2011. From 40.50 gourdes in 2010, the U.S. dollar is now buying 42.70 gourdes. The
expected increase in the volume of food imports could help continue to strengthen the dollar against the gourde throughout the outlook period, between October and next March.

- The rising prices of staple foods like rice, corn, beans, oil, and flour between October and March could significantly affect the cost of the consumer basket and help make food access increasingly difficult for poor households, both in areas of concern and at the country level.
- The government will help advance the winter growing season in irrigated areas in November through distributions of selected inputs (seeds and fertilizer) and repairs of farm infrastructure damaged by the recent storms.
- The lean season for poor households in practically all parts of the country and, in particular, in the Northeast, on the Northwestern Peninsula, in certain parts of the Western department, and in certain areas on the Southern Peninsula, will begin earlier than usual (by January/February instead of March/April).

**Most likely food security outcomes**

Food security will continue to deteriorate throughout the outlook period in areas affected by the drought and the storms, driven by the rising prices of staple foods. The food reserves of poor households are nearly or completely depleted and income-earning potential remains extremely limited. October harvests of bean crops in humid mountain areas were poor to virtually nil in the aftermath of the drought and Hurricanes Isaac and Sandy. Most poor households in areas affected by these shocks are currently in IPC Phase 2: Stress. The expected poor harvests of pulses, pigeon peas, and sorghum between November and January/February will not allow poor households to meet their food needs between now and next March, and they will be largely dependent on market purchase for their food supplies throughout the outlook period, while facing the prospect of very little demand for their labor, their main source of income, an across-the-board increase in staple food prices, and the accelerated depletion of their productive assets. Without carefully planned and well-targeted aid, very poor and poor households will be propelled into IPC Phase 3 (crisis) between January and March in the Southeast, the La Gonâve area, and the Northwest.

**AREAS OF CONCERN**

**La Gonâve Island**

**Current situation**

The island of La Gonâve is divided between two livelihood zones (an agropastoral area and a dry agropastoral area), where market purchase and crop production are the main sources of food and paid labor and gifts are the main sources of income for the poor. The three-month period from October through December is marked by the harvesting of pigeon pea, pearl millet, and groundnut crops, during which time poor households are able to take advantage of the large demand for labor to generate household income. This year, however, there will be very little demand for labor, which will put the poor in an added risk of significant economic constraints. Normally, labor demand is high during the three-month period between January and March in preparation for the spring growing season. However, the multiple shocks that have impacted the country this past year have curtailed seed availability in this area.

Farming activities are presently at a standstill as a direct result of the drought and ensuing storms. Thus, there are very limited income-earning opportunities for the poor from on-farm employment, as has been evident for a number of months. This year, there was no second corn harvest, which normally takes place between September and October, due to the drought conditions preventing most planting activities, which are usually spread over the period between June and July. The second growing season usually provides enough food crops and income from on-farm employment to ensure the food security of very poor and poor households for two to three months. This year, however, in the aftermath of the drought and Tropical Storm Isaac, demand for local labor, one of the main sources of income for poor households, is insignificant. As a result, these households are facing considerable constraints, having practically depleted their food reserves nearly three months earlier than usual. Since Tropical Storm Isaac, local climatic conditions, marked by more or less moderate rainfall, have been conducive to the resumption of farming activities, but poor farmers are unable to take full advantage of these good conditions due to the unavailability of seeds. Certain households have migrated to Port-au-Prince, but in much smaller numbers than usual.

Harvests of sorghum, pigeon pea, and groundnut crops planted between March and April will be staggered over the period between November and December. However, according to local farmers, these harvests will most likely be only about half their normal size. In fact, in the wake of Hurricane Sandy, harvests are expected to be even smaller than estimated in
assessments of the damage caused by Hurricane Isaac. The harvesting of groundnuts which, being more drought-resistant than other crops, are a cash crop for this area, should create some demand for labor during this period, though not as much as usual. Still, it will give certain farm workers an opportunity to earn between 100 and 110 HTG for a day’s work, slightly more than 50 HTG less than their normal rate of pay. Some workers prefer in-kind payments, which they can convert to cash themselves at a later date.

Next year’s lean season, which normally runs from April to June, will begin in February. The situation of poor households will deteriorate during the lean season, with their expected poor harvests unable to guarantee them large enough food reserves to last beyond the end of January. The main source of income for the poorest households will be charcoal production. Certain households will choose to migrate to large cities in search of work. The main growing season, which also begins in March/April, could be in jeopardy without outside aid to mitigate the effects of current shortages of seeds.

After a long lean season marked by sparse vegetation due to poor soils and a chronic water shortage aggravated by the drought, livestock have begun to put on weight since the recent heavy rains associated with Tropical Storm Isaac. However, the goat population, one of the main sources of savings, has dwindled in the aftermath of Tropical Storm Isaac, during which heavy downpours drowned nearly 2000 head of stock, reducing the economic potential of affected households and making them more vulnerable to future shocks. The price of livestock which, right now, is down sharply due to large market supplies, will begin to rise as of December, in line with the growth in demand for the year-end holiday season. A kid selling for 1600 to 2000 HTG in September of last year is currently selling for only 1200 to 1400 HTG.

The shortage of locally grown crops and generalized price increases of available imports are eroding the purchasing power of very poor households. Staple food prices on markets in La Gonâve have moved sharply upwards since the end of August. The price of black beans, at 250 HTG per sack, is 36 percent higher in September 2010 and 60 percent above the five-year average for the Western department. Following this same pattern, the price of cooking oil is up 23 percent from September 2010, at 331 HTG/gallon compared with 252 HTG in September of that year. Scheduled harvests between November and December will be too small to significantly reduce prices. However, conditions should improve slightly in November and December with the availability of groundnuts and sorghum on local markets.

Assumptions

- Markets will have very limited supplies of local crops between October and next March and prices for imports will increase, eroding the purchasing power of poor households.
- Demand for labor and wage rates will be lower than usual between October and December, but scheduled harvests in November and December will improve the food security situation of poor households. However, these harvests, which will be much smaller than usual, will not allow poor households to meet their food needs, even during the harvest season. Next year’s lean season could begin two months earlier than usual, by February instead of in April.
- Many households have already sold off livestock in order to send their children to school in October. Others will be forced to sell their livestock in order to eat. Thus, having depleted their productive assets, these households will be limited in making future investments in farming.
- Charcoal production is expected to increase between January and March of next year. This coping strategy, which will be implemented by most poor households during this period, is not without negative effects on the area’s natural resources, which are being gradually depleted and whose production potential is being steadily eroded.
- The flow of migration to the mainland will increase. Migrants able to find work will send money back home to family members remaining on the island and may save up enough to invest in the spring growing season.
- A cholera outbreak could occur in high-risk areas as a direct result of Hurricane Sandy. There is a severe shortage of drinking water in La Gonâve, exposing the population to contamination risks. A cholera outbreak striking household breadwinners will make nonworking family members more vulnerable to food insecurity.

Most likely food security outcomes

With dry spells and the two hurricanes, harvests on La Gonâve Island have been very poor, putting poor households in IPC Phase 2: Stress since July/August, where they will remain throughout the three-month period between October and December. Scheduled harvests in November and December will be too small to meet their typical needs. Moreover, the waning demand for labor will prevent them from earning enough income to purchase household food needs. Prices are increasing and are expected to continue to climb throughout the outlook period. Without assistance, the food security situation of poor households could steadily deteriorate, possibly putting them in IPC Phase 3 (crisis) between January and March of next year.
Southeast (Livelihood Zone 6: Dry Agriculture and Fishing Zone)
The main sources of food in this area are market purchase and crop production. November, December, and January are devoted to the harvesting of corn, groundnut, sweet potato, pigeon pea, and sorghum crops, during which time poor households are somewhat less dependent on the market for food access. However, even at harvest time, the share of on-farm production as a source of food for poor households is negligible compared with market purchase. This year, local markets will play a larger than usual role as a source of food due to the small harvests of these crops hard hit by the recent string of droughts and storms. While internal migration generally peaks between February and April, the various shocks to this area have already increased the flow of migration. Crops are normally planted in March, provided the rainy season begins on time, creating a larger demand for labor, the source of close to 70 percent of the income earned by poor households. However, with this year’s losses of spring and fall crops, demand for labor has been lower than usual. All household groups are vulnerable to price hikes, since their main source of food is still market-purchase. Fishing is an important source of food for poor households in coastal areas, which makes them vulnerable to weather-related hazards.

Dry conditions resulting in the loss of approximately half the harvest of spring crops were followed by Tropical Storm Isaac, which caused extensive damage to farm infrastructure. Ensuing losses are estimated at 80-90 percent of the bean crop, 80 percent of the banana crop, and approximately 40 percent of pulse crops, according to preliminary figures from an assessment by an NGO. The continuing drought conditions through the month of September, at least in certain municipalities, will prevent the proper growth and development of fall crops such as beans and corn. As a result, upcoming harvests are expected to be extremely poor.

The period from October to December is marked mainly by the maturation and harvesting of corn, sorghum, and pigeon pea crops. In all three cases, the long periods of drought and the damage caused by Hurricanes Isaac and Sandy could reduce output by as much as 70 percent, particularly in the case of pigeon peas. Moreover, agricultural technicians are reporting smaller areas planted in sorghum crops compared with previous years, which were severely damaged by Hurricane Isaac. The gusty winds accompanying Tropical Storm Isaac put an abrupt end to the avocado harvest, causing poor households to resort to harvesting their grapefruit crops as a coping strategy, which they do not normally begin doing until sometime in February. Hurricane Sandy also affected maturing crops, as well as livestock. A post-disaster evaluation will more accurately assess the impact of this latest shock.

With the decrease in farming activities in the aftermath of Tropical Storm Isaac, there is very little demand for farm labor. Wage rates range from 75 to 200 HTG. In contrast to the normal pattern of migration beginning in February, there is already a flow of labor migration to Port-au-Prince or the Dominican Republic. It is reportedly common practice for households in the municipality of Belle-Anse to send at least one family member off to work in Port-au-Prince to meet the needs of the rest of the household. The combined effects of the drought and Tropical Storm Isaac have created shortages of local crops such as black beans and plantains on local markets. Prices for imports are up sharply since the poor spring harvest. September prices for imported ground cornmeal were 34 percent higher than at the same time last year, at 161 HTG per sack compared with 106 HTG in September of 2011. Prices for locally grown corn also rose approximately 34 percent over the same period. Beans selling for 178 HTG per sack in September 2011 cost 36 percent more this year. Cooking oil is selling for 391 HTG in the Southeastern department, 17 percent more than in August of this year and 7 percent more than in September of last year.

Assumptions
- Staple food prices are expected to increase due to the poor harvests in this area, the depreciation of the gourde affecting the cost of imported staples like rice and flour, which are widely consumed by local households, and the rising international market prices of certain items such as corn.
- The small harvests as a result of the various shocks affecting local crops will mean less demand for farm labor during the outlook period. Farmers will need fewer workers to harvest their crops between November and January. With less disposable income and after two consecutive failed growing seasons, they will be less inclined if not incapable of investing in the next growing season scheduled to begin in March, which means a loss of potential earnings for poor households who count on selling their labor for most of their income.
- A surge in the number of cholera cases is increasingly likely in November in areas with major water supply and sanitation problems. Communes such as Bainet and certain parts of Jacmel are especially at risk of a cholera outbreak, as demonstrated over the last two years. The erosion in the income-earning capacity of households with breadwinners affected by this disease will make them more vulnerable to food insecurity.
**Most likely food security outcomes**

Harvests of pigeon peas and pearl millet should enable poor households to meet their basic food needs in November and December. However, these harvests will be so small that household food reserves will run out two months earlier than usual, or by January instead of in March. Despite the limited demand for labor, certain households will start receiving foreign remittances by the beginning of December, which should slightly improve their food security situation classified in IPC Phase 2 (stressed). However, conditions in certain municipalities like Belle Anse, Côtes de Fer, Grand Gosier, and Marigot currently in IPC Phase 2 (stressed) due to damage from weather-related hazards will remain unchanged between October and December. As of January, the grain reserves of poor households will be completely depleted, forcing them to rely mainly on market-buying. At the same time, there will be very little demand for labor and prices for staple foodstuffs like beans, corn, and rice could jump by more than 25 percent. This will put poor households in the municipalities of Marigot, Belle Anse, Côtes de Fer, and Grand Gosier in IPC Phase 3 (crisis) between January and March and households in other areas in IPC Phase 2 (stressed).

**EVENTS THAT COULD CHANGE THE SCENARIO**

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<tr>
<th>Area</th>
<th>Event</th>
<th>Impact on food security</th>
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<td>Southern Peninsula, West, Artibonite</td>
<td>A hurricane strike causing further damage to crops.</td>
<td>Difficulty ensuring regular market supplies of food crops.</td>
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<td>Nationwide</td>
<td>Rise in international market prices for food crops in general and corn in particular</td>
<td>Pass-through of price hikes to local markets, unaffordable prices for very poor and poor households.</td>
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<tr>
<td>Northeast</td>
<td>Pest infestations.</td>
<td>Losses of groundnut and rice crops, losses of cash crops, and earlier than expected depletion of food reserves.</td>
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<td>Nationwide</td>
<td>Coverage of tuition costs for primary education by the government.</td>
<td>This will enable poor parents to boost their food consumption, given the influence of education costs on the food security of poor households.</td>
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<td>Nationwide</td>
<td>Effective consensus-building by different government bodies, political parties, and civil society organizations allowing for the holding of free local and parliamentary elections accepted by the vast majority of the population.</td>
<td>Economic stakeholders will use the opportunity to invest in the country, helping to create permanent jobs.</td>
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<tr>
<td>Southeast, South, North, Artibonite, Nippes</td>
<td>Delivery of carefully planned and well-targeted assistance by the government or humanitarian organizations. The government could also work with its partners to mount labor-intensive activities in especially hard hit areas or stimulus programs for farming activities as it did in 2009 in the aftermath of that year’s four hurricanes, providing supplies of farm inputs and farming equipment. These investments helped boost crop production by more than 20 percent that year.</td>
<td>Boost in crop production and job creation for the poor, less dependence on market-buying, improvement in purchasing power, and better market access.</td>
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<tr>
<td>Southeast, La Gonave, Northeast, Northwest</td>
<td>Increase in social safety net programs by the government and NGOs providing cash transfer payments or price subsidies for staple foods like rice, as in 2008 after the food riots.</td>
<td>Well-targeted programs of this nature would help bring down the number of food-insecure households.</td>
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**About scenario-building**

In endeavoring to estimate food security outcomes for the ensuing six-month period, FEWS NET establishes basic assumptions with regard to possible events, their effects, and likely responses by different stakeholders. It makes analyses based on these assumptions and considering current conditions and local livelihoods for the crafting of scenarios estimating food security outcomes. FEWS NET’s early warning information is generally based on the most likely scenario.