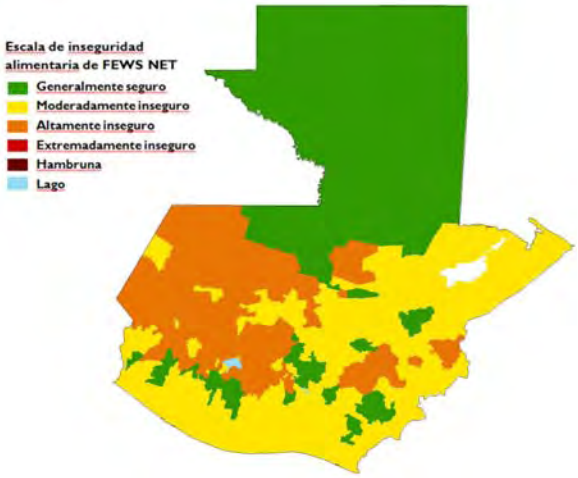
GUATEMALA Food Security Outlook — July to December 2008

- While the April to August hunger season continues and prices for basic food staples have increased, the food security situation remains relatively stable for this time of year (Figure 1). Sowing of *primera* staple cereal crops is progressing well, although pest- and flood-related damage was reported in July in the southern parts of the country and along the east and northern coast, respectively. Normal to above-normal rains this quarter threaten lives and livelihoods, including health conditions as well as infrastructure. Given such conditions, approximately 1.9 million people are currently food insecure.

- In the most likely scenario, October to December, rainfall is expected to be normal to above-normal, with probable floods and landslides. The incidence of diseases, such as dengue, respiratory and gastrointestinal infections, is expected to increase. Cereal prices will have stabilized with the *primera* harvest (August-September), although basic food basket prices will remain above normal. Approximately 1.9 million people will remain food insecure.

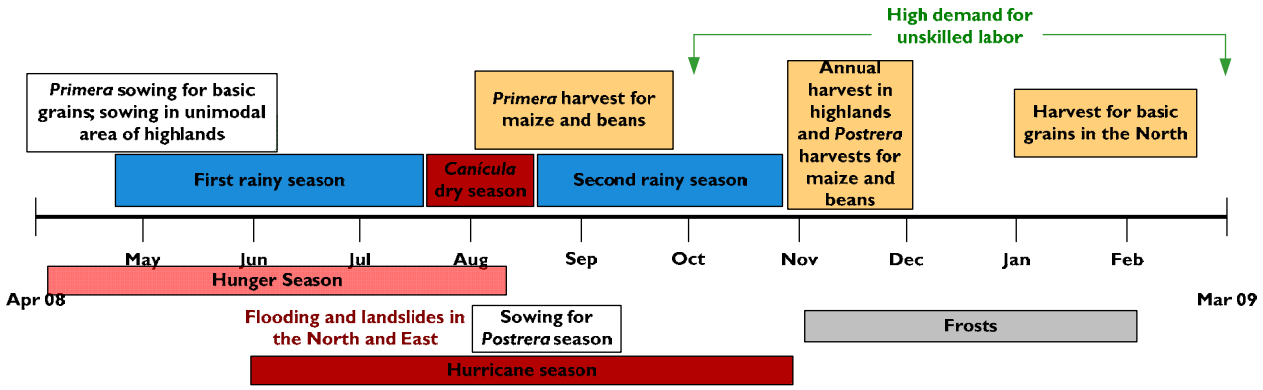
Figure 1: Current estimated food security conditions, July to September 2008



Source: MFEWS

- In the worst-case scenario, October to December, at least one tropical storm or hurricane would occur, resulting in the loss of *postrera* basic grains crops as well as agro-industrial products. The reduced availability of food and demand for agricultural labor in affected areas will have a significant impact on the food security of the poorest households. In addition, storms or hurricanes will damage or destroy infrastructure and productive assets, and health conditions will deteriorate. Limited food availability at the market due to floods, combined with a continued increase in global prices, will push basic food prices beyond the purchasing power of poor households. In this scenario, the number of people food insecure will increase to over two million people.

Seasonal calendar and critical events



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Current food security conditions, July to September 2008

Food security conditions this quarter will continue to experience a seasonal deterioration through the end of the hunger season (April to August), but then begin to improve with the arrival of the *primera* harvest in August. While populations in the north of the country continue to rely on basic grain stocks from their third harvest earlier this year, southern areas, without such benefit, are most affected. To compensate for diminishing food availability, households are reducing their consumption, both in terms of quality and quantity, and, in some cases, seeking temporary employment as unskilled laborers on construction projects. Approximately 1.8 million people are currently chronically food insecure, particularly in the highlands and some eastern areas, as well as an additional 100,000 people vulnerable to floods and landslides due to the onset of the second half of the rainy season in mid-August. While some food rations are being provided to families in shelters, these populations are currently without any form of systematic assistance.

Table 1: Scenario assumptions and indicators

Most-likely food security scenario

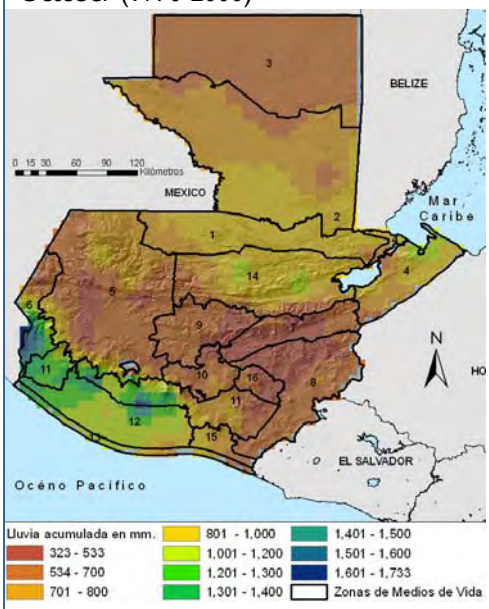
- Rainfall levels ±10 percent of the historical average
- Localized infrastructure damage due to floods and landslides
- Average *primera* basic grains harvest
- High cost for basic food basket persists, but basic grains prices stabilize
- Normal demand for unskilled agricultural labor

Worst-case food security scenario

- Hurricane or tropical storm in the country
- Loss of crops and infrastructure damage due to rains and landslides
- Increase in incidence of diseases
- High cost of basic food basket persists; basic grains prices increase
- Decrease in demand for unskilled agricultural labor

Sowing of the *primera* crop (April to June) continued without serious setbacks, despite deficits in the provision of subsidized fertilizer from the Ministry of Agriculture. The May to July rainy season began early with some heavy levels of accumulated rainfall in the north and east due to Tropical Storms Alma and Arthur in early June. At the same time, there were light and irregular rains in the country's central and southern "drought belt" zones. However, crops in these latter areas were not seriously impacted by the dry conditions, given that rainfall resumed shortly thereafter. Smaller staple grain yields or losses are possible in areas of the southern coast due to pests (e.g., blind hen and cojollero worm, affecting both maize and bean crops). Smaller yields and losses are also possible in areas highly vulnerable to floods and river overflows, including areas along riverbanks (particularly the Motagua and Polochic rivers, as well as those along the south coast) and low-lying areas in the south and along the Atlantic coasts. Food availability in these areas will be affected as a result. In fact, several floods and landslides have already occurred in northern and eastern departments of the country in July, affecting crops, housing and physical access to and from communities. Flood-related damage to *primera* crops would limit food availability from August/September until the arrival of the *postrera* harvest at the end of the year. Should major weather hazards take place, however, food aid from government institutions is expected, in order to mitigate the impact of crop and income losses, as well as shelters and potable water.

Figure 2: Average precipitation, August to October (1970-2000)



Source: INSIVUMEH; Graphic: MFEWS

According to national weather forecasts, the *canicula* dry season will occur in late July and early August, with the rainy season then continuing from mid-August to October. This rainy season is predicted to be normal to above normal, normal being equal to or greater than 10 percent of the historical average, 1970 to 2000. These rains will bring floods, river overflows and landslides that will affect infrastructure, including damage to bridges and roads. While affecting communities' commercial access as well, they are expected to be isolated and localized events. Water overflows, humidity and the contamination of water sources will worsen epidemiologic conditions, increasing gastrointestinal and respiratory diseases, as well as vector-borne diseases such as dengue and malaria. The

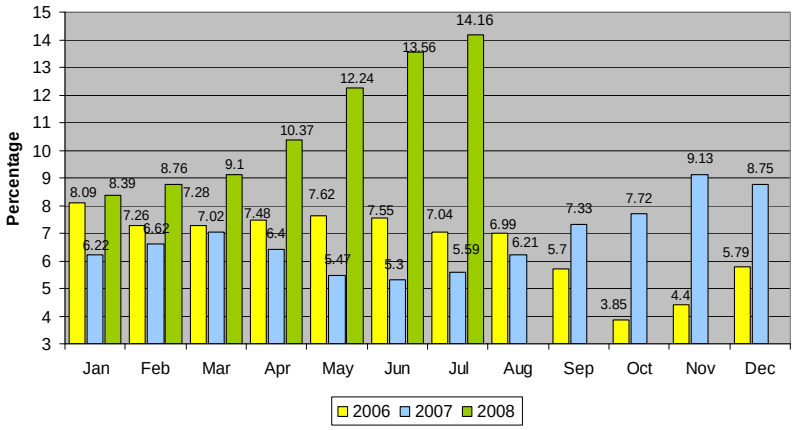
potential for heavy rains and subsequent damage, disease, and other effects, will impact the country's Pacific coastal plain, southern coast and the Atlantic coast the most, given that they receive the greatest accumulated rainfall on average during the second half of the rainy season (Figure 2).

The hurricane season also continues, from June to October. According to the National Oceanic and Atmospheric Administration's (NOAA) updated Hurricane Outlook in August, there is a 85 percent probability of normal to above-normal hurricane activity in the Atlantic this season (the average coinciding with six to 14 tropical storms, and four to eight hurricanes), and a high probability of below-average activity in the Pacific (the average coinciding with 10 to 18 tropical storms, and six to 12 hurricanes). Given such forecasts, it is highly likely that Guatemala will see some increased rainfall, tropical storm or hurricane activity this season, as well as the flooding, landslides and other damage that accompany it. At the same time, since the *La Niña* phenomenon has dissipated and normal conditions prevail, it is possible that these forecasts may change, or that the course tropical storms modify, as they move away from Central America.

At the close of the current period, *postrera* sowing will take place between August and September on time and as usual, according to weather forecasts to date. In addition, rainfall will be normal to above-normal, leading to an average *primera* basic grains harvest beginning in August. This harvest has important food security implications, given that it accounts for approximately 40 percent of annual national production, between September and October. The cardamom *primera* harvest will begin in September, increasing revenue, food access and food availability for poor populations in Alta Verapaz and Quiché, who depend on this crop and labor tied to its cultivation for up to 90 percent of their income. While cardamom prices could decrease in comparison to those reported in the previous cycle, December to May, which registered increases of 50 to 100 percent, prices are still expected to remain above last year's. As a result, labor demand is also expected to remain at last year's generally favorable levels.

Inflation continues to be of concern in the country, having increased significantly this year compared to the past two years (Figure 3). As a result, while prices for basic staples are lower than last year, the price of the basic food basket overall is also above that of previous years. International factors including the high price of oil and grains are largely the cause, although currently these increases are taking place within a context of seasonal price increases during the hunger season, to last until harvests begin in August/September. This has only compounded the current food security situation, particularly for the poorest households whose food reserves are being depleted. MFEWS continues to monitor the current prices situation and its impact on food security.

Figure 3: Consumer price index, inter-annual inflation, 2006-2008



Source: INE

Most likely food security scenario, October to December, 2008

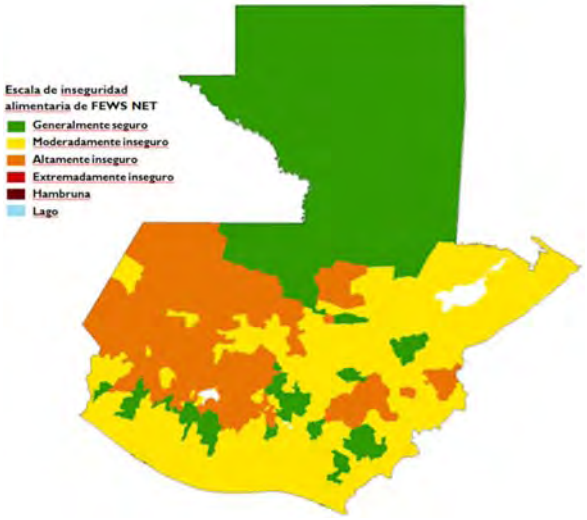
In the most likely scenario, an average *primera* basic grains harvest will continue to improve food availability and help stabilize grains prices, although the cost for the basic food basket is expected to remain high. Food will be more readily available from own production and at the market, and food access issues will not intensify further from the current period, July to September. While poor households with land will have basic grains from their own *primera* harvest, those in the highlands will continue be more food insecure, given that they only have one harvest, which will not arrive until the end of the year (Figure 4).

Greater demand for unskilled labor in agricultural activities will begin in October for cardamom crops and coffee cutting, and the sugar cane harvest will provide the poorest households with higher incomes, given projections for no decrease in

labor recruitment. Populations in the highlands, the north and the *bocacosta* region will benefit the most from the demand for unskilled labor during this season, since they tend to migrate the most.

Given predictions for average to above-average rainfall and hurricane activity (±10 percent of the historical average), and the incidence of the most severe storms taking place in October and early November, weather-related damage is expected. Intensive rainfall could cause damage to both national and household infrastructure, due to floods and landslides. Such events will limit commercial and market access, and divert scarce resources to repairs as well as medical attention and supplies. In addition, an overall deterioration in health and nutrition conditions may be expected in areas affected by such weather activity. For example, an increased incidence of gastrointestinal and respiratory diseases, as well as vector-borne diseases including dengue, is expected, due to water stagnation and contamination. Given their vulnerable states, children under five will be more prone to episodes of acute malnutrition.

Figure 4: Most likely food security scenario, October to December 2008



Source: MFEWS

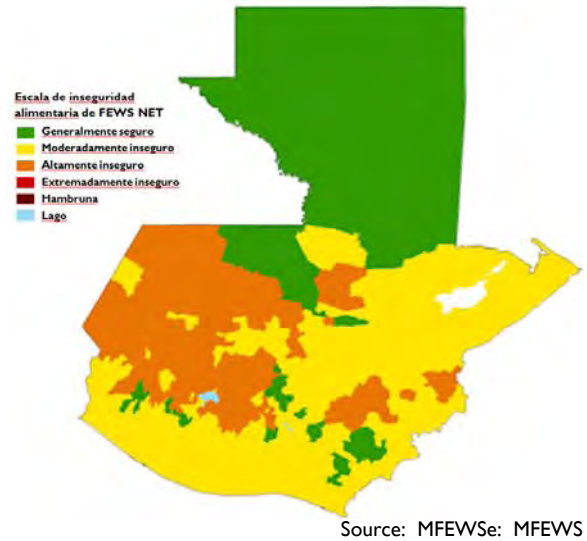
At the end of this quarter, the November to January cold fronts and frosts will arrive. However, they are not expected to be severe during the current Outlook period, October to December.

Given that many of the conditions from the current July to September period continue into this Outlook period, the estimate of people facing food insecurity for the October to December Outlook period will remain at 1.9 million people, including the 100,000 people at risk of climatic events.

Worst-case food security scenario, October to December 2008

The worst-case scenario for October to December includes the presence of at least one tropical storm or hurricane. In this scenario, the *postrera* basic grains harvest would suffer crop losses and/or, should it affect the country's highlands, the *primera* harvest as well. In the event that the Southern coast is affected, sesame seed crop losses would be expected, limiting households' ability to generate income to buy inputs for next year's basic grains crop. Other areas, such as the North Transversal Corridor, Peten and the Motagua river basin, and the Caribbean Basin, are vulnerable as well, with losses expected for their staple crops, African palm tree, banana, melon and other export crops. These export crops are an important source of employment within their respective livelihood zones; any losses experienced there could affect the demand for unskilled labor. Given that daily wages represent up to 90 percent of income for the poorest households in these zones, and they rely on the market for as much as 50 percent of their basic grains needs, their food insecurity status would deteriorate given their resulting inability to purchase food (Figure 5).

Figure 5: Worst-case food security scenario, October to December 2008



Source: MFEWSe: MFEWS

Since road infrastructure is particularly vulnerable after the end of the rainy season in October/November, it will be more prone to damage from landslides, floods and river overflows. This would hinder access to food in the short-term, as well as transport and trade of agricultural products within the country and for export. Such access issues will affect households

most dependent on the sale of their products to generate income, as well as those that rely on the market to meet their food needs.

Also in this scenario, the heavy rains, floods, and river overflows forecast would contaminate drinking water, causing an increase of diarrheal, skin and vector-borne diseases in affected areas. This would also be reflected in an increased incidence of acute malnutrition, particularly among young children. Given the deteriorating conditions, a rapid response would be required by the government, NGOs, and donors, including the provision of potable water, medicine and medical supplies, and country-wide educational water-handling campaigns.

Finally, given crop losses and the steady increase in prices for oil and other goods on the international market, the basic food basket price, including for basic grains, will continue to rise. Poor and landless households who depend on day labor wages for income will be most affected, particularly if demand for unskilled labor in agro-industrial crops (coffee, sugar cane, and cardamom) were reduced due to climatic factors. This is particularly the case in livelihood zones 11 (coffee-producing areas) and 12 (agro-industrial crops) in the *bocacosta* region as well as 14 (cardamom and coffee) in the northern part of the country (Figure 6).

In the worst-case scenario from October to December, the number of people food insecure would increase by almost 81,000 people, for a total of 2.05 million people. The additional figures represent those people highly vulnerable to extreme events such as flash floods and hurricanes/tropical storms. To mitigate the impact of these events, activities would include the supply of medicine and other health center materials and equipment, improved coordination and contingency planning within local and central institutions, the repair of damaged or vulnerable infrastructure, and/or the provision of alternatives for improved physical access, as well as the reinforcement of vulnerable infrastructure.

Figure 6: Livelihood zones most affected in the worst-case scenario

Source: MFEWS