

HURRICANE SEASON Food Security Alert

June 22, 2010

Forecast for an above-average season raises concerns for food security

According to both the National Oceanic and Atmospheric Administration (NOAA) and the Colorado State University Tropical Meteorology Project, the 2010 Atlantic hurricane season is expected to be very active. The forecast is of particular concern this year given the impacts of the January 12 earthquake in Haiti and Tropical Storm Agatha in Central America in May. Development of contingency plans, pre-positioning of food commodities, and heightened tropical storm monitoring are strongly recommended.

The Colorado State University Tropical Meteorology Project estimates that there will be 18 named storms (average is 9.6), 10 hurricanes (average is 5.9), and five major hurricanes (average is 2.3), with tropical cyclone activity at approximately 195 percent of the long-term average. Colorado State University has also estimated landfall probability in the Caribbean, with a nearly 20 percent probability of a major hurricane tracking within 50 miles of Haiti (Figure 1). The NOAA 2010 Atlantic hurricane season outlook also estimates a high likelihood of an above-normal season, with a 70 percent probability of 14-23 named storms, 8-14 hurricanes, and 3-7 major hurricanes. In general, tropical storms and hurricanes have similar impacts on food security in Central America and Haiti. These impacts include crop damage and resulting reduced agricultural production, livestock deaths, damage to housing and infrastructure, reduced access to markets and health services, and high prices for food and non-food items due to reduced market access and food availability.

Haiti is highly vulnerable to the impacts of hurricanes. This is particularly true this year given the damage caused by the January 12 earthquake. Food security has improved in the Port-au-Prince metropolitan area since January due to the massive distribution of food aid, the increase in cash-for-work programs, and the gradual resumption of business activity. Nonetheless, households are still recovering from the shock to livelihoods, social systems, and housing; basic services are slowly being restored, and infrastructure remains in need of repair. Furthermore, approximately 1.6 million people remain in camps that are vulnerable to damage from flooding, landslides, and strong winds, and are subject to poor health and sanitation conditions. Other areas that are vulnerable to the impacts of tropical storms and hurricanes include the southern peninsula and the West and Artibonite departments. These areas are especially prone to flooding and wind damage, given heavy deforestation. In addition, the spring harvest in July-August is expected to improve food security in many areas, and significant storm activity has the potential to disrupt this harvest.

In Central America, most countries are experiencing moderate to high levels of food insecurity due to erratic 2009 rainfall and below-average crop production. Furthermore, the region has already been severely affected by Tropical Storm Agatha (a Pacific system) in late May, which caused extensive damage to infrastructure and has jeopardized *primera* season crop development, particularly in Guatemala. The primary food security-related impacts of tropical storms or hurricanes would be reduced agricultural production and food availability due to crop damage. Since hurricane season activity tends to peak between August and November, storms during this period therefore pose a threat to both staple crop production from the *primera* harvest (August) and the establishment of the *postrera* season (August). Damage to cash crops is also possible and would result in reduced demand for unskilled labor, an important source of income for the poorest households.

Given the potential for major storms this season, contingency planning and response preparations are critical, including pre-positioning of food commodities, increased public awareness campaigns, purchase of seeds for re-sowing (if appropriate), and heightened storm monitoring.

The Famine Early Warning Systems Network (FEWS NET) issues alerts to prompt decision-maker action to prevent or mitigate potential or actual food insecurity. The views expressed in this publication do not necessarily reflect the view of the United States Agency for International Development or the United States Government.

Figure 1. Tropical storm and hurricane landfall probabilities in the Caribbean (selected countries) compared to the 100-year climatology

	Probability of 1 or more <u>named storms</u> tracking within 50 miles*	Probability of 1 or more <u>hurricanes</u> tracking within 50 miles*	Probability of 1 or more <u>major hurricanes</u> tracking within 50 miles*
Guatemala	48% (29%)	19% (10%)	4% (2%)
Haiti	60% (38%)	37% (21%)	18% (9%)
Honduras	78% (54%)	29% (16%)	14% (8%)
Nicaragua	46% (27%)	21% (11%)	11% (6%)

*Figures in parentheses represent average storm landfall probabilities based on 1900-2000 climatology.

Source: Colorado State University Tropical Meteorology Project