Continuing El Niño drives increased food insecurity across many regions

The strong El Niño of 2015 has contributed to suppressed rainfall over northern East Africa and Central America and the Caribbean (Figure 1), significantly limiting agricultural and pastoral potential, and straining local livelihoods. These impacts are contributing to Crisis (IPC Phase 3) acute food insecurity for approximately four million people in these regions. With El Niño forecast to continue into the first quarter of 2016, suppressed rainfall is likely over many regions during the coming rainy seasons, including in Southern Africa, Central America, and the Caribbean (Figure 2). Over the Horn of Africa and Central Asia, as well as parts of North and South America, the forecast strong El Niño is expected to result in above-average precipitation (Figure 2). Close monitoring of seasonal rainfall performance is needed in areas where El Niño is known to drive regional climate variability. Humanitarian agencies should prepare for high levels of assistance needs across many regions due to El Niño-related impacts on agricultural and pastoral production.

El Niño is a periodic climate phenomenon defined by anomalously warm seas surface temperatures in the eastern and central tropical Pacific Ocean. El Niño modifies the global energy balance, driving anomalous circulations of the atmosphere and strong changes in regional precipitation relative to average conditions. The strength of the current El Niño is comparable to the strongest El Niño events in recorded history, namely, 1982/83 and 1997/98. All forecast models surveyed by NOAA’s Climate Prediction Center call for this El Niño to continue into the Northern Hemisphere spring of 2016.

In northern Ethiopia, eastern Sudan, Central America, and the Caribbean, the current El Niño suppressed rainfall from June to September 2015, resulting in significant agricultural and pastoral impacts. In northern Ethiopia and eastern Sudan, late rains with intermittent dry spells contributed to reduced area planted, late planting, and households planting shorter cycle crops. Forage and water availability are significantly below average. In Central America and the Caribbean, satellite-derived rainfall estimates suggest that the recent Primera/Primtemps season was the driest in 35 years. Many subsistence farmers in drought-affected areas have seen crop production for the season drop by at least 50 percent compared to average, with some households experiencing complete crop failure. Forecasts for the Postrera/Automne and Apante seasons also call for below-average rainfall. Impacts of the poor seasons in both Central America and the Caribbean and northern East Africa have already contributed to large numbers of people experiencing Crisis (IPC Phase 3) acute food insecurity.

As El Niño continues through the first quarter of 2016, the Horn of Africa, Southern Africa, and Central Asia, as well as several other regions, are likely to experience abnormal rainfall patterns. In the Horn of Africa, forecast above-average October to December rains will be generally beneficial for both agricultural and pastoral production, but also come with increased risk for river and lakeshore flooding, as well as flash floods. El Niño is associated with reduced October to April rainfall in Southern Africa, a region where maize supply is already well below the five-year average and acute food insecurity is already more severe than usual, especially in Malawi and Zimbabwe. In Central Asia, El Niño is associated with above-average rainfall and snowfall during the October to May wet season. These conditions should be generally positive for agricultural and pastoral production, but as with East Africa, will also present a higher risk for spring flooding.
El Niño also affects major surplus-producing regions of South and Southeast Asia. Drier than average conditions have been observed in parts of India, Thailand, and Vietnam. Although current global rice supply stocks are good, mixed cropping conditions for rice production in Asia have the potential to contribute to reduced future supply. Global rice supply is important for many African, Central American, and Caribbean countries that rely on imports to meet national cereal demand.

This current strong El Niño has already contributed to Crisis (IPC Phase 3) acute food insecurity outcomes for at least four million people across large areas of Central America, Haiti, and northern East Africa. With significant impacts to agricultural and pastoral production likely to continue, the number of people in Crisis (IPC Phase 3) or higher due to the effects of El Niño is expected to increase substantially in coming months, especially in Southern Africa and the Horn of Africa. Humanitarian agencies should be prepared for high levels of assistance needs in affected areas. In addition, the historically strong El Niño events of 1982/83 and 1997/98, to which the current El Niño has been compared, were followed by rapid transitions to La Niña conditions. A La Niña beginning after mid-2016 could lead to another year with significant departures from normal rainfall in many regions.