A fourth consecutive season of below-average rainfall expected over the Horn of Africa

Given recent forecast model outputs and an increased likelihood of a La Niña developing in the coming months, FEWS NET science partners at NOAA and USGS anticipate below-average rainfall in the eastern Horn of Africa during the upcoming October to December 2017 Deyr season. Should this occur, it would mark the fourth consecutive season of below-average rainfall for many areas of the sub-region. Although uncertainty exists for all seasonal precipitation forecasts, early contingency planning and close monitoring of seasonal performance are essential given the already high levels of acute food insecurity, especially in Ethiopia and Somalia.

The early-September IRI/CPC ENSO forecast suggests an increased likelihood of La Niña between October 2017 and February 2018. La Niña events are typically associated with below-average rainfall totals in the Horn of Africa between October and December. In addition, various forecast models, including many that make up the North American Multi-Model Ensemble (NMME), now suggest below-average rainfall during October, the month during which nearly half of Deyr season rainfall typically occurs. An analysis of historical rainfall data indicates that the likelihood of significantly below-average seasonal rainfall more than doubles when October rainfall is poor (Figure 1). The increased likelihood for below-average October to December 2017 rainfall is a shift from long-range forecasts released in early 2017, which indicated an increased likelihood of above-average October to December rainfall over the Horn of Africa.

Many areas of the eastern Horn of Africa have experienced poor to very poor rainfall performance over the past three consecutive rainy seasons, beginning with the March to May 2016 Gu season. This has already contributed to large food assistance needs in the region and extreme levels of acute food insecurity in Somalia and Ethiopia. Another season of poor rainfall performance in the eastern Horn of Africa will limit pasture regeneration and water availability, reduce rainfed crop harvests, and exacerbate already high levels of acute food insecurity. An analysis of agricultural production data in Somalia shows that the frequency of poor agricultural production (i.e., cereal harvests <70% of average) rose from 27 percent during the 1995-2016 period to 67 percent in years when the season started poorly. A risk of Famine (IPC Phase 5) persists in the sub-region given the extended drought, heavy livestock losses, disease outbreaks, and persistent challenges with provision of life-saving humanitarian assistance, without which outcomes would likely be worse.

Figure 1. Frequency of significantly below average Oct-Dec rainfall (<70% of average) in the Eastern horn of Africa

![Figure 1. Frequency of significantly below average Oct-Dec rainfall (<70% of average) in the Eastern horn of Africa](source: CHIRPS rainfall data)

Figure 2. Frequency of significantly below average Deyr season crop production (<70% of average) in Somalia

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