

## Forecast below average rainfall late 2020 and early 2021 likely to drive high food assistance needs

Food security across the eastern Horn of Africa is likely to deteriorate in late 2020, driven by below average rainfall from October to December. Food assistance needs across the region are already high, due to recurrent climatic shocks since 2016, the economic impact of COVID-19, and the desert locust upsurge, as well as longer term deterioration in macroeconomic conditions in Ethiopia and conflict in Somalia and Ethiopia. Based on already high levels of acute food insecurity and the vulnerability of the eastern Horn to crop failure and reduced livestock productivity during below-average rainfall seasons, food security outcomes will likely deteriorate through at least early 2021 in Somalia, southern and southeastern Ethiopia, and northern and eastern Kenya. Furthermore, a long-term decline in rainfall performance and preliminary climatological research suggest an elevated likelihood of below average rainfall in the March to May 2021 season. Two consecutive poor seasons would likely result in rapidly worsening acute food insecurity. Although uncertainty exists for long-range seasonal forecasts, national governments and humanitarian actors should plan for heightened food assistance needs through at least early 2021 and possibly through 2021.

Figure 1. Average October to December rainfall performance in years with similar climate drivers, shown as a percent of the 1980-2010 average

Three climate drivers elevate the likelihood of below average rainfall during the October to December (OND) 2020 rainfall season in

Source: FEWS NET

eastern Horn. First, forecast model outputs predict enhanced sea surface temperature gradients in the Pacific Ocean, which are strongly correlated to poor OND rainfall in this region. Second, the early July IRI/CPC ENSO forecast indicates an increased likelihood of a La Niña event between September 2020 and March 2021. Finally, the July BOM forecast suggests an increased likelihood of a borderline negative Indian Ocean Dipole, which is also correlated with below average OND rainfall. In recent years with similar climate drivers (1998, 1999, 2005, 2007, 2010, 2016, and 2017), rainfall was below average (Figure 1). Based on current forecast global climate conditions, the North American Model Ensemble (NMME) predicts below average rainfall is most likely in the OND 2020 season. FEWS NET'S research shows that the NMME forecast has predicted nine below average OND rainfall seasons in this region since 1996, and eight of these forecasts correctly anticipated droughts. Furthermore, the development of La Niña would amplify the Pacific gradients, increasing the likelihood that climatic conditions in OND 2020 may be similar to OND 2016, when poor rainfall resulted in drought.

The OND rains are critical for crop production in southern Somalia, southeastern Kenya, and southern and southeastern Ethiopia. Although crop production in these areas of Kenya and Ethiopia contributes little to national cereal requirements, it is an important source of food and income locally. Based on an analysis of cereal crop production data in OND seasons with similar climatic conditions during the 1995 to 2017 period, crop losses were greater than 20 percent of average nearly 60 percent of the time in agropastoral areas in southern Somalia and 100 percent of the time in marginal agricultural areas in southeastern Kenya. Crop losses will reduce demand for agricultural labor, diminishing a key income source for poor households and limiting their capacity to purchase food during the September to November lean season. Crop losses will also reduce local food availability and contribute to rising food prices leading up to and after the January/February 2021 harvests. The reduction in labor income, combined with anticipated rising staple food prices linked to tight supply in Somalia and Kenya and inflation in Ethiopia, is expected to limit household purchasing power. As a result, Crisis (IPC Phase 3) outcomes are expected in southern Somalia and southern and southeastern Ethiopia. In southeastern Kenya, where international maize and wheat imports are more likely to mitigate steeper price increases, a rising number of households will likely be in Crisis (IPC Phase 3). Bay Bakool Low Potential Agropastoral Livelihood Zone of Somalia is of highest concern, where households are highly vulnerable to labor shocks and some households will be at risk of Emergency (IPC Phase 4).

