

Africa Weather Hazards Benefits Assessment

for

December 14 – 20, 2006

Weekly Introduction:

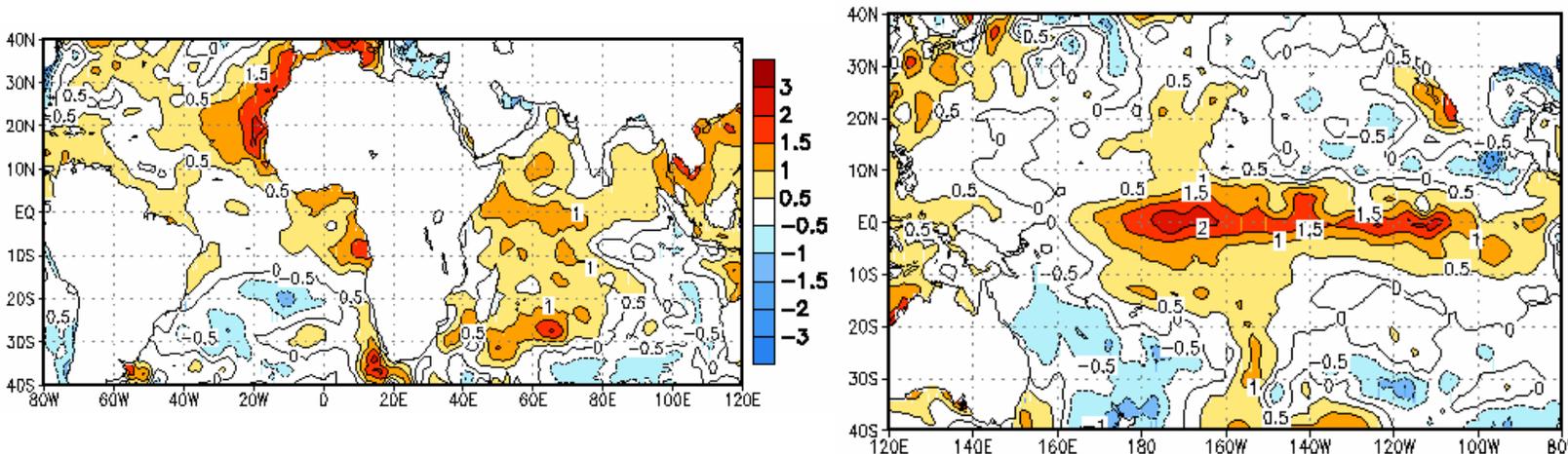
Positive ENSO conditions and the Indian Ocean Dipole remain in place

Although there has been a slight amount of cooling in the eastern tropical Pacific, sea surface temperatures remain well above normal across most of the basin. Positive ENSO conditions (or El Niño conditions) are expected to remain in place through the end of the southern Africa growing season.

In the Indian Ocean the Indian Ocean Dipole remains in place with warm sea surface temperatures covering most of the basin, and cooler temperatures remaining near Indonesia. The cooler waters off Indonesia have been warming up during the last few weeks and will return to normal soon. The Indian Ocean Dipole normally breaks down this time of year.

These sea surface temperatures continue to imply heavy rainfall in the Lake Victoria basin to points eastward in Kenya, Ethiopia and Somalia, where we have seen the results of the heavy rainfall already with catastrophic flooding. Meanwhile in southern Africa dry conditions will possibly develop early next year as a result of the El Niño signature in the Pacific.

**Sea Surface Temperatures (deg C)
for Week centered on 06 DEC 2006**



Africa Weather Hazards/Benefits Assessment

1) Recent rainfall has improved conditions in southern Mozambique. Below normal rainfall in this area continues to be of particular concern, because of ENSO conditions. (See #2)

NOTE: Black hatched regions depict combined wheat, maize, sorghum, and millet crop zones which are active (sowing to harvest) during the current month. (from FAO)

2) ENSO-positive (El Nino) conditions may lead to drier than normal conditions in early 2007 in southern Africa.

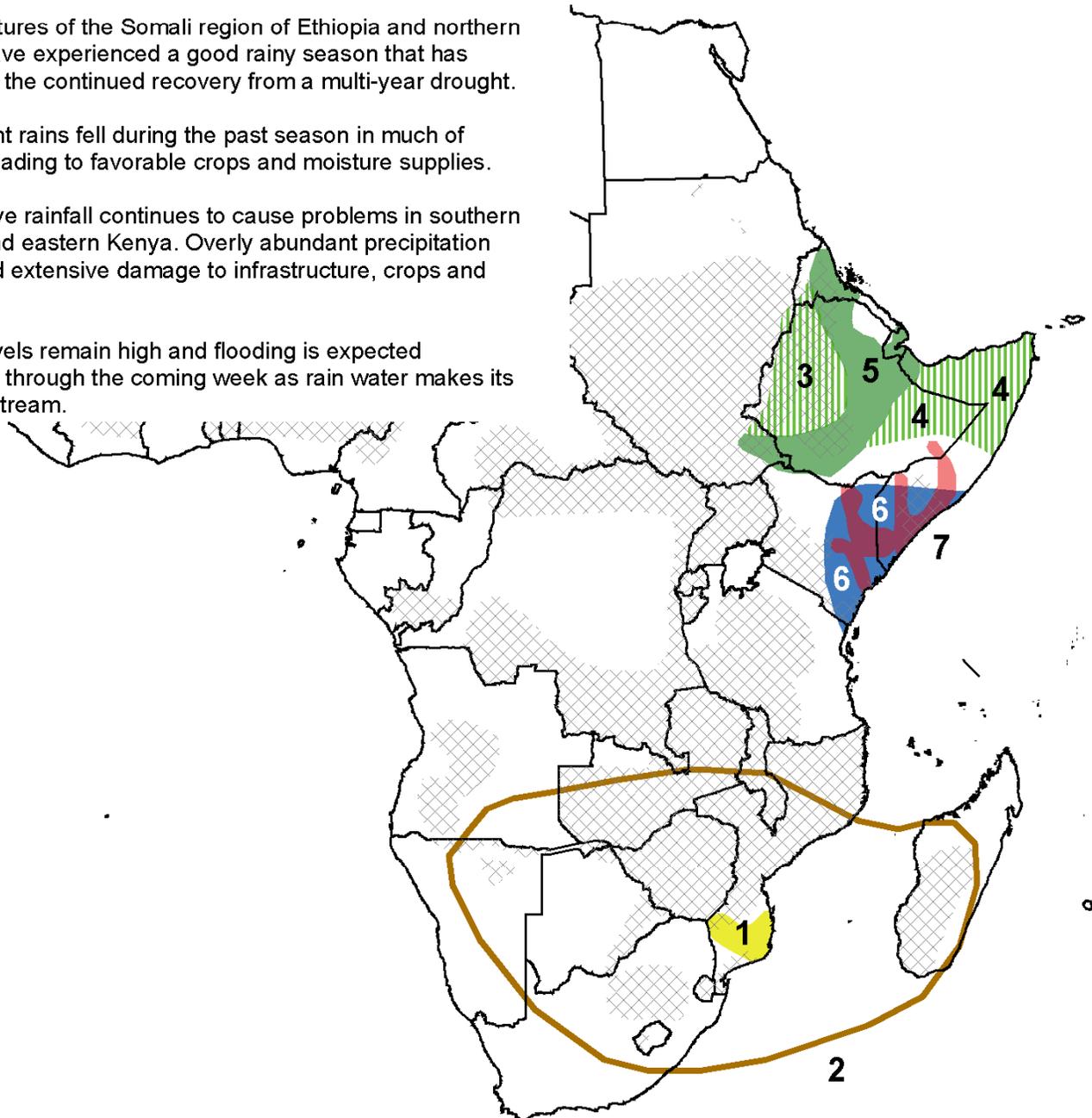
3) Some locations in west-central Ethiopia experienced excessive rainfall, which could allow the spread of crop pests.

4) The pastures of the Somali region of Ethiopia and northern Somalia have experienced a good rainy season that has allowed for the continued recovery from a multi-year drought.

5) Abundant rains fell during the past season in much of Ethiopia, leading to favorable crops and moisture supplies.

6) Excessive rainfall continues to cause problems in southern Somalia and eastern Kenya. Overly abundant precipitation has caused extensive damage to infrastructure, crops and livestock.

7) River levels remain high and flooding is expected to continue through the coming week as rain water makes its way downstream.



Weather Hazards Text Explanation:

- 1) Southern Mozambique continues to experience short term dryness. Soil moisture did increase slightly during the past two weeks. Rainfall deficits still remain significant with some areas in need of up to 50 mm of precipitation. It should be noted that this is among these areas that could experience season long dryness as a result of ENSO conditions (see #2). Last week heavy rainfall soaked the Beira area the evening of December 11th, causing localized flooding. Rainfall totals for the twelve hour event were in excess of 300 mm. This rainfall, however will not improve conditions over all as impacts were only felt in the immediate vicinity of the town.
- 2) Positive ENSO conditions are occurring and are expected to continue through early 2007. Sea surface temperatures in the main index area of the Pacific Ocean are running 1.5 degrees Celsius above normal. Other areas are seeing anomalies as high as 2 degrees Celsius above normal. Therefore moderate El Nino conditions are currently being experienced. Based on climatological patterns in southern Africa during El Nino seasons, there is a link between positive ENSO conditions and dryness in Zambia, Zimbabwe, Botswana, Namibia, South Africa, Mozambique and Madagascar during the January to March portion of the wet season. Additionally positive rainfall anomalies during October to December are common during ENSO events. Usually the entire region is not impacted. There is no guarantee that dry conditions will materialize anywhere as it is not known what impacts the sea surface temperatures in the Atlantic and Indian Oceans will have in Southern Africa.
- 3) West central Ethiopia has experienced a season of robust rainfall with totals that reached as high as twice normal rainfall. The excess rainfall benefited crop development as well as pastures, but also caused some localized flooding and crop damage. The above normal rainfall has also allowed for the spread of crop pests and waterborne disease.
- 4) The pastures in northern Somalia and much of Ethiopia's Somali region have experienced their second consecutive good season. Rainfall in most areas was plentiful and has allowed pastures to recharge. This improvement is a recent development, as the region was in a multi year drought until earlier this year that will require several more seasons of good rains to completely recover.
- 5) Abundant rainfall over much of Ethiopia, Eritrea and Djibouti has greatly benefited pasture lands, crops, and drinking water. Normal to twice normal rainfall totals can be found throughout the region, with the heavier totals further to the south. The higher totals in southern Ethiopia are a result of the rains having stayed longer than normal, possibly causing some problems with harvesting crops.
- 6) Rainfall continues to pound the Somali-Kenya border area, causing extensive damage to infrastructure, crops and generally hampering relief efforts throughout the area. Although a good rainy season following the March-May drought was needed, rainfall has been well above normal. The excessive rainfall has caused a significant amount of damage and fatalities and is encouraging waterborne diseases as it washes away crop seeds. Rainfall during the coming week is once again expected to be too heavy for the saturated soils to handle. Once the over abundant rainfall ends, conditions will be better as soils moisture will be plentiful enough for cropping in the early part of 2007.
- 7) The Juba, Shabelle, Tana and Nyando river basins continue to receive additional precipitation despite the rivers already being above flood stage along various portions of their course. More rainfall over Kenya, Somalia and Ethiopia during the past week will cause additional flooding as the precipitation makes its way downriver. More rainfall is expected during the coming period.

AUTHOR: Eric J. Wolvovsky

Questions or comments about this product may be directed to Chet.Schmitt@noaa.gov or 1-301-763-8000 x7519

FEWS NET is a USAID-funded activity whose purpose is to provide objective information about food security conditions. Its views are not necessarily reflective of those of USAID. The FEWS NET weather hazards assessment process and products include participation by FEWS NET field and home offices, NOAA-CPC, USGS, NASA, and a number of other national and regional organizations in the countries concerned.