

Africa Weather Hazards Benefits Assessment

for

January 25 – 31, 2007

Weekly Introduction:

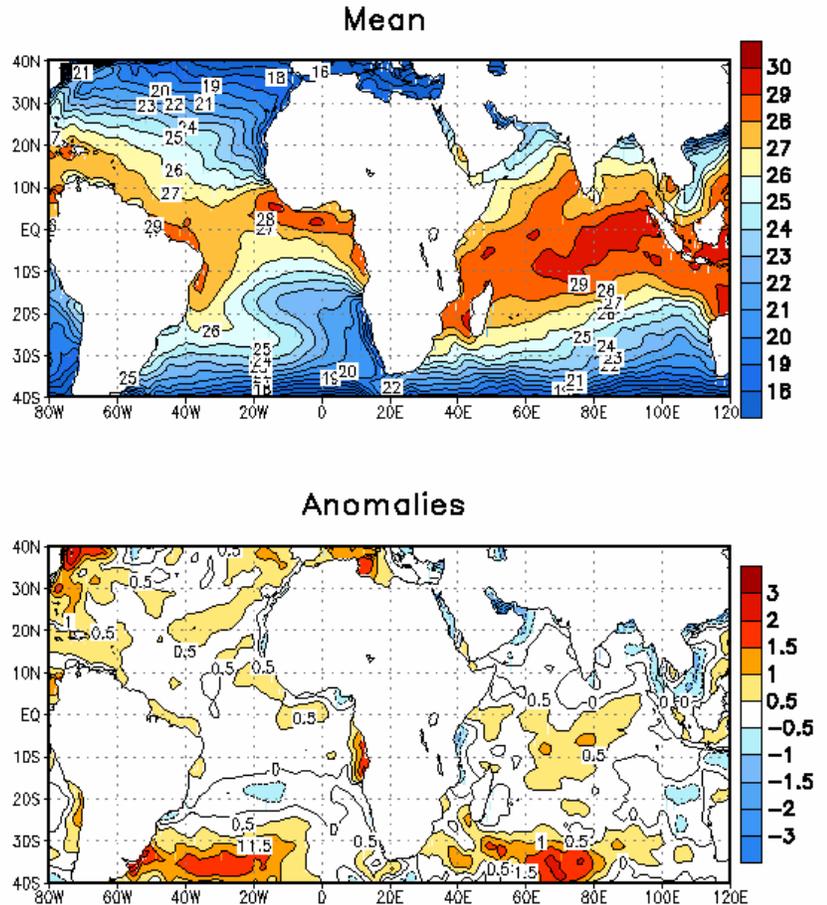
Indian and Atlantic Oceans Remains Warm

The Indian Ocean Dipole, partially responsible for the above normal precipitation in the Horn of Africa during the past few months, has broken down. Despite this, the weakening El Nino signature in the Pacific has allowed the wet conditions around Lake Victoria to remain in place.

Additionally the warm temperatures in the tropical Indian Ocean have remained in place. Thus the possibility of additional tropical cyclones developing remains.

In the Atlantic, warm water remains in the Gulf of Guinea region, which has helped to bring some light, but unseasonable rains as far north as the Sahel.

Sea Surface Temperatures (deg C)
for Week centered on 10 JAN 2007



Africa Weather Hazards/Benefits Assessment

1) Favorable rains in central Mozambique will also bring the threat of localized flooding along major rivers. Several rivers in the area have risen during the past week and are expected to continue to rise.

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) Remaining a concern, ENSO-positive (El Nino) conditions may lead to decreased rainfall into February & March across portions of southern Africa.

3) Dry and warm conditions persist over southern Mozambique. Rainfall may move into the area during the coming period.

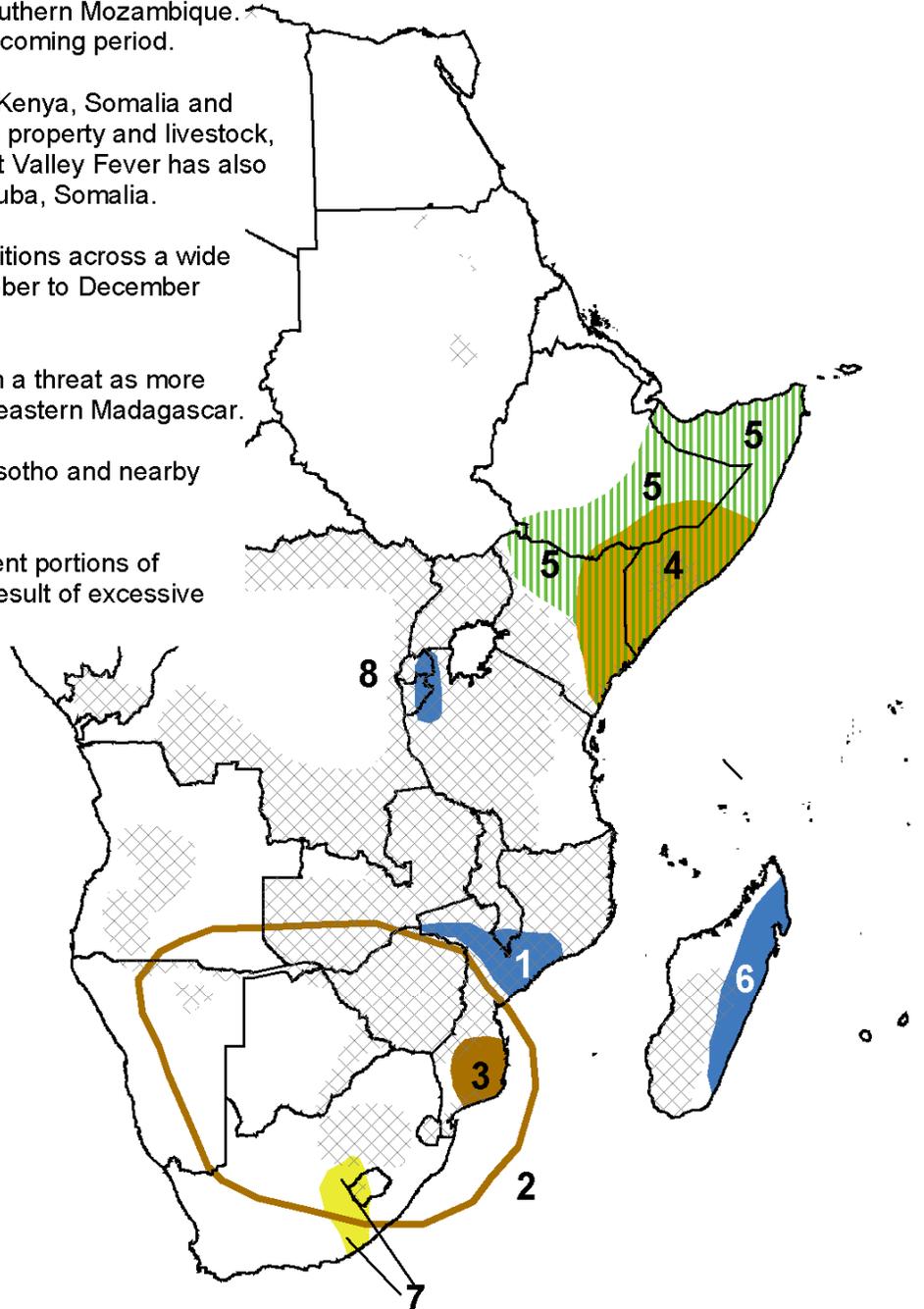
4) Heavy short season rains in sections of Kenya, Somalia and Ethiopia have caused extensive damage to property and livestock, displaced people and caused fatalities. Rift Valley Fever has also broken out in north eastern Kenya and in Juba, Somalia.

5) Favorable agricultural and pastoral conditions across a wide area in the Horn is the result of strong October to December rains. (See #4)

6) Localized flooding and mudslides remain a threat as more heavy precipitation is expected to fall over eastern Madagascar.

7) A slow start to the season in western Lesotho and nearby parts of South Africa.

8) Sections of Rwanda, Burundi and adjacent portions of Tanzania have experienced flooding as a result of excessive moisture.



Weather Hazards Text Explanation:

- 1) Rainfall continues to inundate central Mozambique. Heavy rainfall during the past several weeks has saturated soils and allowed river levels to rise. These problems are compounded by the fact that up stream along the Zambezi and the Shire rivers heavy rainfall has contributed to flooding in areas that have also received heavy rainfall. Although it is still possible for there to be ENSO impacts as a result of the on going El Nino conditions, it seems that the steady and abundant rainfall combined with decreasing Pacific sea surface temperatures, it is unlikely that impacts will be felt in this area.
- 2) ENSO positive (El Nino) conditions continue to weaken. The magnitude of the warm anomaly in the Pacific continues to drop as sea surface temperatures cool off. Sea Surface temperatures in the Nino 3.4 region have continued to drop and are now showing a warm anomaly of less than 1 degree Celsius. That is down from the peak in December of 1.5 degrees. Many models show this trend continuing through the next six months. El Nino typically impacts Africa during the December – February period with wetter than normal conditions in the Horn of Africa and drier than normal conditions in southeastern Africa. Thus far the Horn has been wetter than normal (See #4 and #8), however dry conditions in southeastern Africa have been more limited (see #3 and #7). It is still possible, however for a larger area to be impacted by a dry spell during the next 2 ½ months.
- 3) Moisture deficits in southern Mozambique continue to negatively impact agriculture in the region. The hardest hit areas are along the coast, where totals are running as low as 20 percent of normal, or 100 mm below normal. Further inland conditions are better with deficits at about 25 mm or 80 percent of normal. These deficits have accrued during the past 3 ½ months, although early January saw favorable precipitation. The models suggest improved rainfall during the coming week, but a similar forecast last week failed to verify. (See #2)
- 4) The excessive moisture in the Somali region of Ethiopia, central and southern Somalia and eastern Kenya has caused extensive damage to infrastructure. The rainfall has also allowed an outbreak of Rift Valley Fever in Northeast, Kenya and Juba, Somalia. The outbreak in Kenya, which has taken place in the Garissa, Wajir and Kilifi districts, has already caused fatalities. Meanwhile the one in Somalia is still waiting for tests to come back. The heavy precipitation has displaced people both locally and internationally with Somali refugees arriving in rain soaked portions of Kenya. Rainfall over the region has been so excessive this season that two to four times normal rainfall from October to December is common throughout the region. Although most precipitation tapered off, additional light showers are still possible. (See #5)
- 5) Although the heavy rainfall across much of the Greater Horn of Africa caused flooding damage in the short term, there will be long term benefits. As the rains have ended there is now the opportunity to replant in cropped areas, to allow livestock to graze in recharged pastures and access replenished drinking water reserves. These much improved conditions come on the heels of what in most areas was a poor 2006 long rains, and in some areas was several consecutive seasons of failed rains. (See #4)
- 6) Eastern Madagascar, which still has saturated soils form an already active cyclone season, will see another round of heavy rains that will possibly cause some localized flooding.
- 7) Western Lesotho and nearby portions of South Africa have seen a slow start to the season. Although deficits remain small, rains have been erratic making for a poor start to the season. Soil moisture is likely to improve during the coming week as a front moves through southern Africa.
- 8) Localized flooding has been reported in Burundi and is possible in nearby areas of Rwanda and Tanzania. Soils are saturated from an abundance of precipitation, due in part to the weakening El Nino (See #2). Rainfall will continue into the coming period, but will be lighter than in previous weeks. The additional rainfall could still be problematic.

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