

# Africa Weather Hazards Benefits Assessment

for

**February 1 – 7, 2007**

## *Weekly Introduction:*

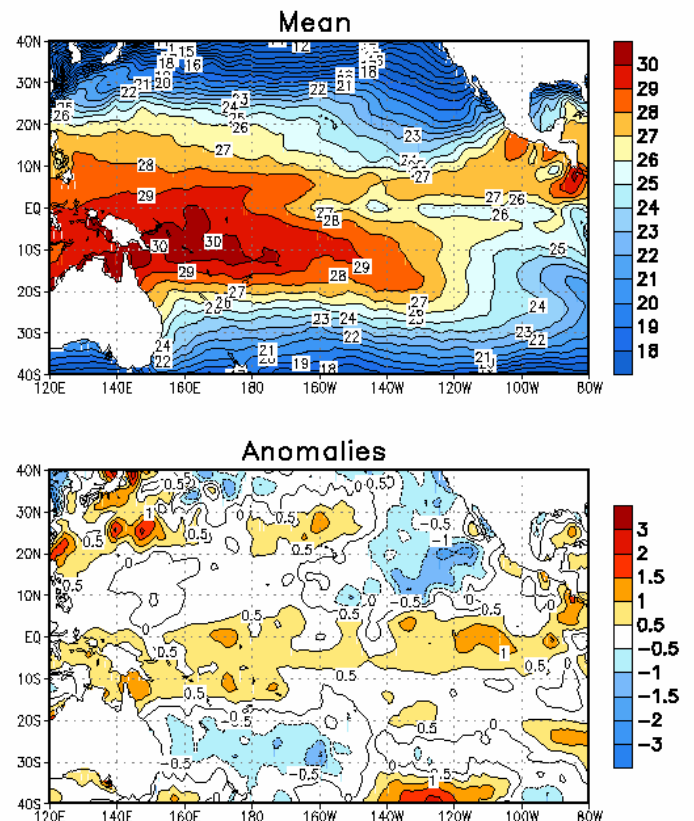
### **Warm water diminishing in the Equatorial Pacific**

Abnormally warm water in the tropical Pacific continues to diminish. Warmer than normal sea surface temperatures in this part of the world are associated with the El Nino, which has been fading.

Despite warmer than normal waters, which have been in the region for months, the atmosphere responded little and few impacts were felt in Africa. Instead, a warmer than normal Indian Ocean sea surface temperatures likely had a more significant impact.

In the Pacific, waters have continued to cool, and a pool of colder than normal water has developed below the surface. This favors sea surface temperatures continuing to fall.

Sea Surface Temperatures (deg C)  
for Week centered on 24 JAN 2007



# Africa Weather Hazards/Benefits Assessment

1) Several rivers in Mozambique are rising despite rainfall having slowed down significantly from December and early January.

2) Positive ENSO (El Nino) conditions that could have potentially affected southern Africa appear to have been less important than sea surface temperatures in the Indian Ocean.

3) Dry and warm conditions continue in southern Mozambique. Little to no relief is likely during the coming period.

4) Heavy October to December 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 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)

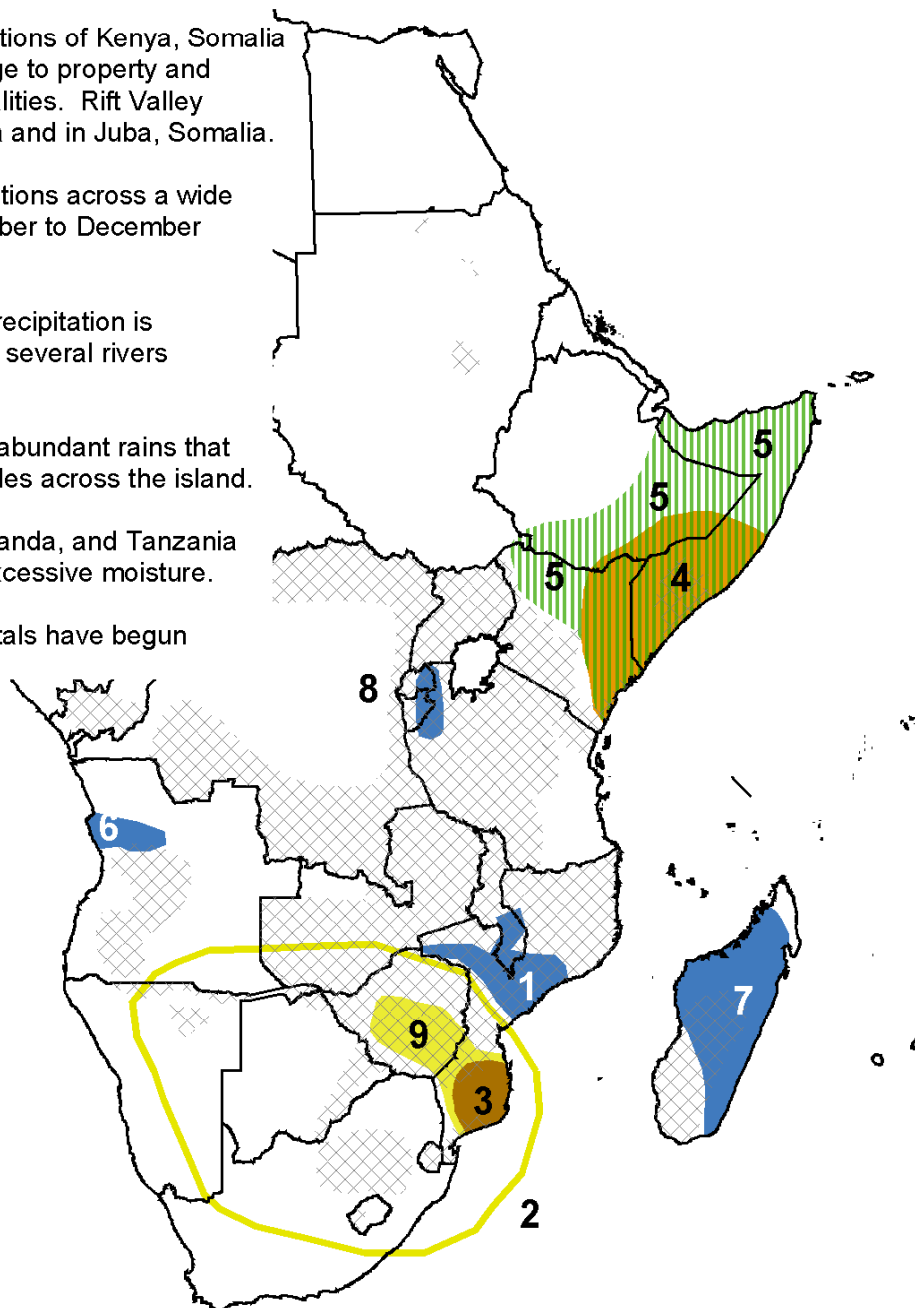
6) Localized flooding is a threat as heavy precipitation is expected to fall over western Angola where several rivers are above flood stage.

7) Madagascar continues to receive overly abundant rains that could cause additional flooding and mudslides across the island.

8) Much of Burundi and nearby parts of Rwanda, and Tanzania have experienced flooding as a result of excessive moisture.

9) Erratic rains and below normal rainfall totals have begun stressing crops in Zimbabwe.

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)



## ***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 rainfall in the immediate vicinity has slowed down, the continued heavy rainfall upstream, as well as the opening of several hydroelectric dams in Zambia, will increase the amount of water making its way through Mozambique. Flooding in Mozambique has already displaced an estimated 48,000 people.
- 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 0.5 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. Despite the fact that dry conditions did develop in the region, these have been the result of local dynamics and not part of the planet-wide ENSO phenomenon. There are now few ENSO impacts expected to adversely affect southern Africa.
- 3) Moisture deficits in southern Mozambique continue to negatively impact agriculture in the region. Deficits are at about 25 mm and cumulative rainfall is 80 percent of normal. These deficits have accrued during the past 3 ½ months, although early January saw favorable precipitation. The poor rainfall has ruined the maize crop, although it is possible for farmers to recover by replanting. If rainfall amounts and distribution do not improve, however, replanting efforts will not be successful.
- 4) The October – December rains in the Horn of Africa were well above normal. The excessive moisture in 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 both Kenya and Somalia. The outbreak in Kenya, which has taken place in the central and eastern areas, has caused fatalities. Meanwhile the outbreak in Somalia has yet to be independently confirmed. 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. Impacts from the rains have been felt as far away as northern Tanzania and Ethiopia's Somali region. (See #5)
- 5) Heavy rainfall across much of the Greater Horn of Africa caused flooding damage in the short term; however, there will be long term benefits. Some areas were able to replant crops that had been washed away, and livestock is now able to feed on recharged pastures. These much improved conditions come on the heels of what in most areas was a poor 2006 long rains, and in some areas were several consecutive seasons of failed rains. (See #4)
- 6) Excessive precipitation in central Angola continues to make its way downstream. The rainfall in the interior of the country has been heavy enough to cause flooding downstream, including in the national capital, Luanda. Additional rainfall is expecting during the coming week, but it will be less intense than it has been during January.
- 7) Flooding and mudslides are likely again this week over much of Madagascar. A stalled front will tap into moisture in the Congo Basin and bring another round of heavy showers and thunderstorms to the already rain soaked island.
- 8) Localized flooding has occurred in Burundi and is possible in nearby areas of Rwanda and Tanzania. Soils are saturated from an abundance of precipitation. These floods have displaced thousands of people, especially in northern Burundi. Although rainfall eased up during the past week, heavier precipitation is expected during the coming period.
- 9) Minor dryness may have an impact on isolated areas of Zimbabwe. Rainfall has only been slightly off in these areas and even with dry conditions sorghum, the main crop grown in this area, is resilient enough to not feel the impacts.

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