The USAID FEWS-NET

Africa Weather Hazards Benefits Assessment

for

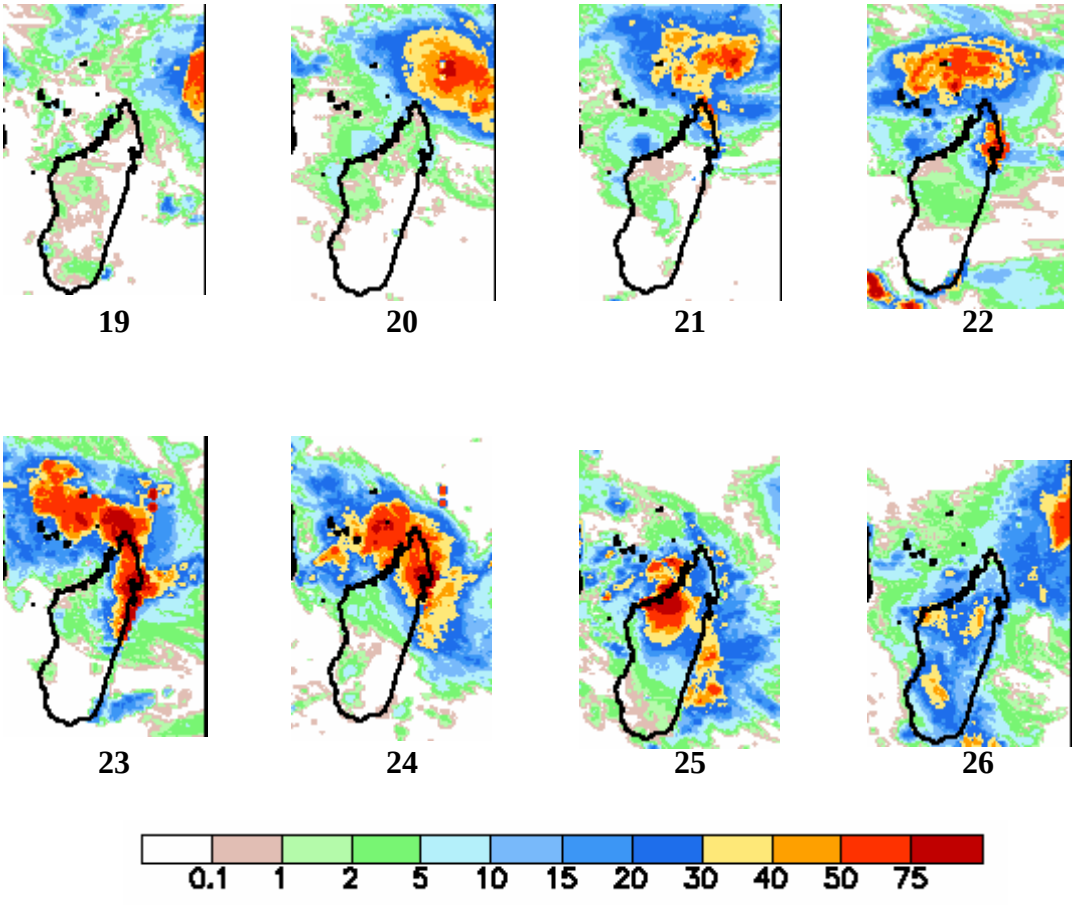
December 28, 2006 – January 3, 2007

Weekly Introduction:

Tropical Cyclone Bondo

Tropical Cyclone Bondo developed into a very powerful storm in the southwestern Indian Ocean. The storm intensity peaked at 110 knots before starting to weaken. By the time Bondo made landfall, it had been down graded to a tropical storm with winds at about 60 knots. Bondo developed on December 18th near Diego Garcia and dissipated on December 26th in the Mozambique Channel.

The following images reflect the rainfall pattern as the tropical cyclone approached and then made landfall. The 19th to the 26th of December are depicted.



Africa Weather Hazards/Benefits Assessment

1) Rainfall is below normal in central and southern Mozambique. It should be noted that planting may take place as late as mid January. Below normal rainfall in this area continues to be of particular concern because of ENSO conditions. (See #2)

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

3) Central west Ethiopia has benefited from a wet season with strong steady rains. Crop pests continue to be of concern as a result of the excess moisture.

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

5) Djibouti, central Ethiopia and northern Eritrea experienced a good rainy season with above normal rains. There are some isolated reports of problems.

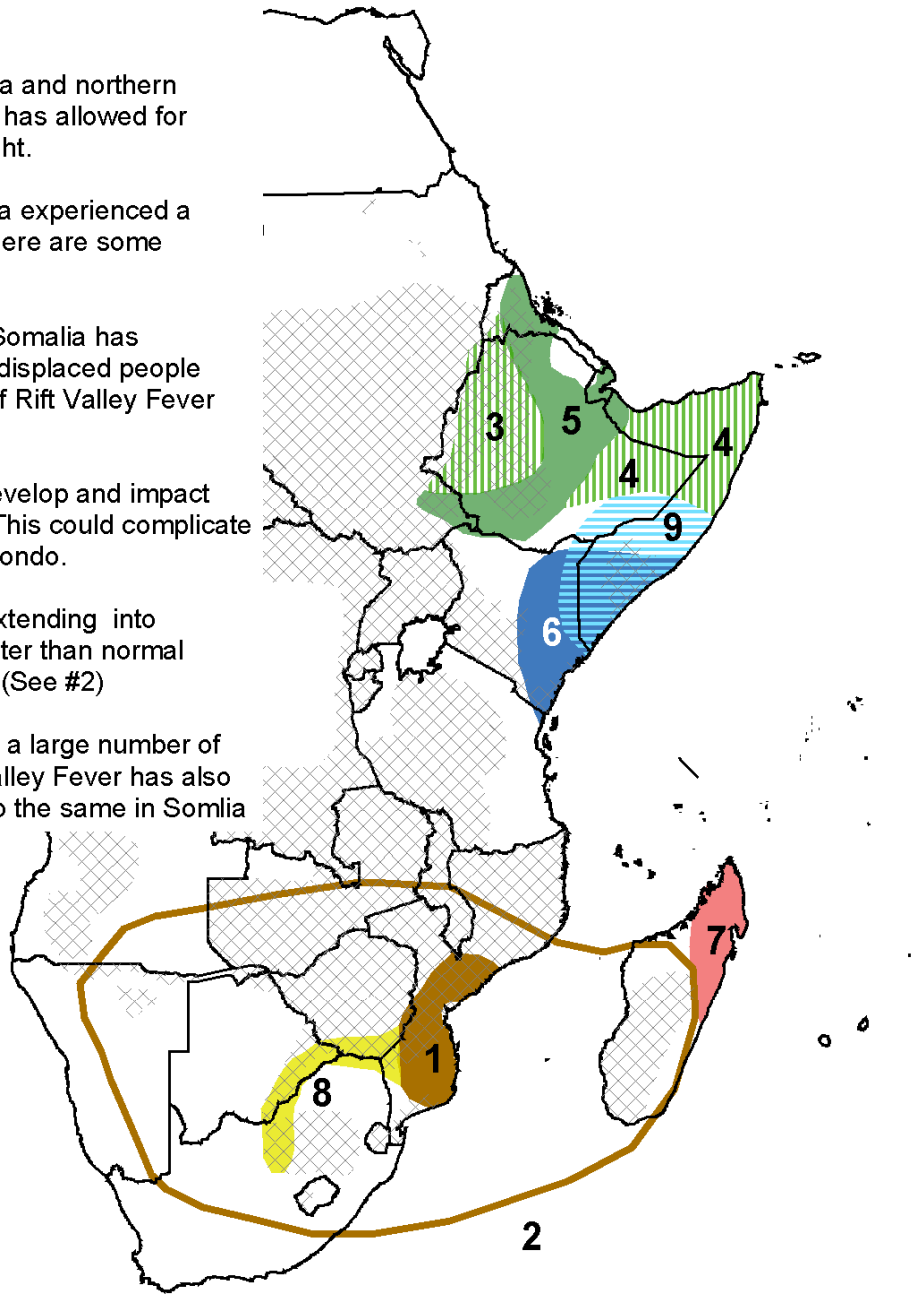
6) Excessive rainfall in portions of Kenya and Somalia has destroyed property and crops, killed livestock, displaced people and caused fatalities. There are also reports of Rift Valley Fever in the North East province of Kenya.

7) There is potential for a tropical cyclone to develop and impact northeastern Madagascar, during the period. This could complicate the clean up efforts from last weeks cyclone, Bondo.

8) The western portion of the Maize Triangle extending into Botswana and Zimbabwe has experienced lighter than normal rains. This is not of major concern at this time. (See #2)

9) Extensive flooding in Somalia has displaced a large number of people both internally and as refugees. Rift Valley Fever has also begun to emerge in Kenya, and threatens to do the same in Somlia and Ethiopia.

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)



Valid: December 28, 2006 - January 3, 2007

Weather Hazards Text Explanation:

1) Poor rainfall totals across central and southern Mozambique has led to a delayed start of the season. Compounding this, in the south, temperatures have reached 40 degrees Celsius during the pervious period and will likely do so again during the coming week. Central Mozambique meanwhile still has not seen a start to its season, which is already more than a month late. Last weeks, precipitation was light with only about 20 mm of rainfall in the south and lighter totals elsewhere. Although the rains are quite late, the situation is not yet critical. According to a local agronomist, Mozambican farmers have developed a good system of replanting. Even if the rains come as late as mid-January, a good harvest is still possible. Heavier precipitation is expected during the coming period, but large rainfall totals will be needed to erase deficits that have exceeded 50 percent of normal over a wide area.

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) Portions of western Ethiopia experienced a series of wet seasons with abundant rainfall during 2006. The well distributed rainfall benefited crops, pastures and drinking water supplies. Although the rain was generally beneficial, the precipitation at times was heavy, resulting in localized flooding and crop damage. The abundant rainfall has also opened the possibility of waterborne disease, mold and other crop pests.

4) The pastures in northern Somalia and much of Ethiopia's Somali region have experienced their second consecutive season of improvement. 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 steady rains to completely recover. There are some concerns that the rainfall may cause localized flooding and damage in places where precipitation was excessive.

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 were reported throughout the region, with the highest anomalies in the south. It is in this part of Ethiopia that there are some concerns that the overly abundant rainfall could cause some problems locally with harvesting as well as crop damage and pests.

6) The heavy rainfall that fell over southern Somalia and eastern Kenya has caused extensive damage to infrastructure, crops and generally hampering relief efforts throughout the area. In many locations roads have been washed away and travel has become difficult and dangerous. The first out breaks of Rift Valley Fever has occurred in the North East province of Kenya. Further out breaks are likely throughout the region. The heavy rains came on the heels of a multi season, and in some cases multiyear drought. The excessive rainfall has caused a significant amount of damage, fatalities and is encouraging waterborne diseases while it washes away crop seeds. Once the over abundant rainfall ends, conditions will improve as soil moisture will be plentiful enough for cropping in the early part of 2007. Certain locations may not get this benefit as damage to infrastructure may be too extensive. This will most likely be a problem along flooded rivers. The past period saw some of the lowest precipitation totals in two months. Rainfall totals ranged from 30 mm in Kenya, to some locations with no rainfall in Somalia. This trend will likely continue into next week.

7) After Tropical Cyclone Bondo made landfall in northern Madagascar last week, another system is expected to form and brush past the east cost of Madagascar. This system will likely dump heavy rains in the same places that saw more than 250 mm of rainfall last week. With the amount of rainfall prediction models are currently forecasting this storm will likely cause flooding damage and landslides in northern Madagascar.

8) Conditions have been slightly drier than normal across a portion of the Maize Triangle in South Africa, as well as southern Botswana and Zimbabwe. This is not yet critical as farmers in this area plant as late as early January, and rainfall during the coming period is expected to greatly improve soil moisture. In some isolated locations, rainfall could be excessive.

9) 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 threatened to allow the spread of Rift Valley Fever. The first out break in Kenya has already occurred. The precipitation has displaced people both locally and internationally. Rainfall over the region has totaled two to four times normal since October.

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