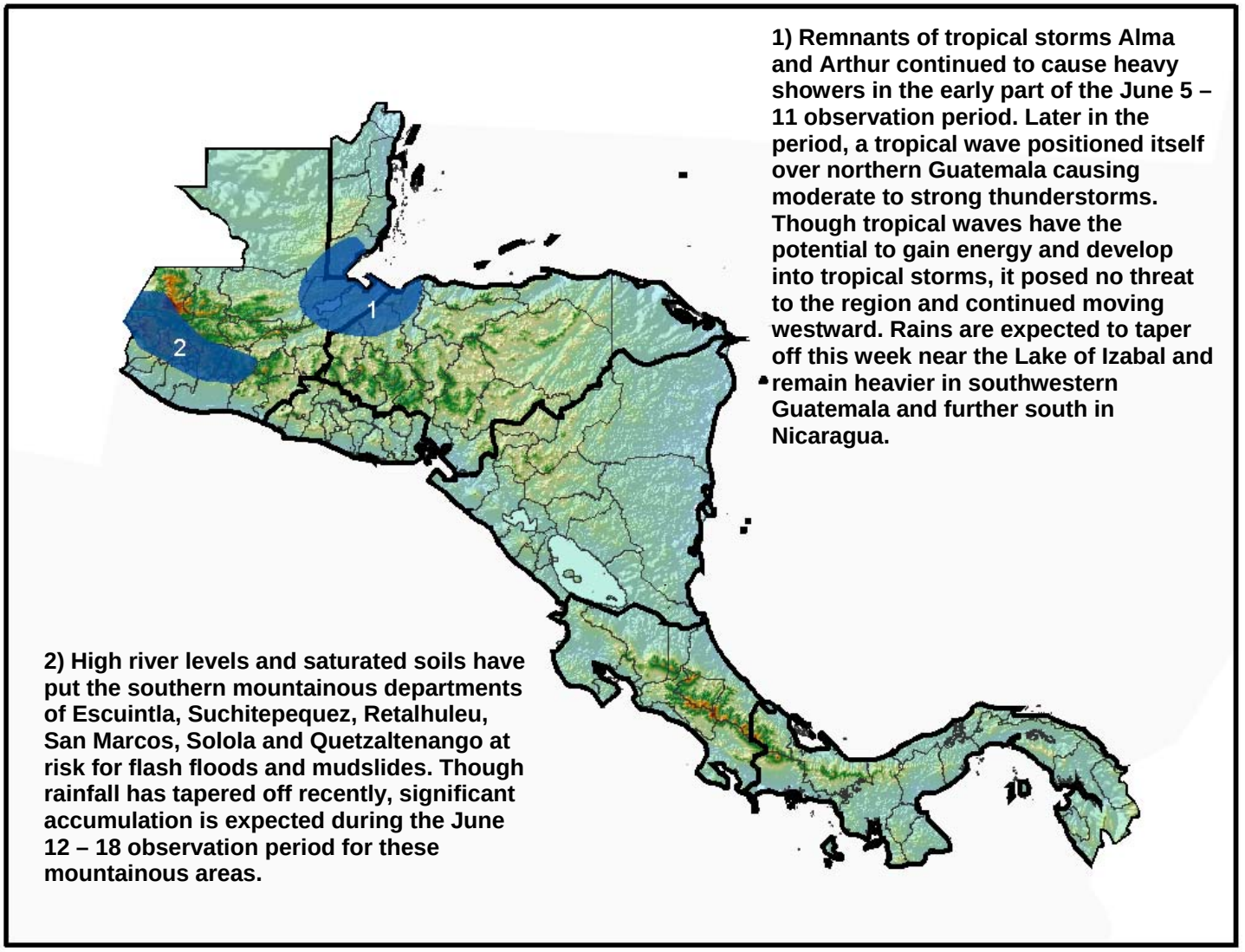
MFEWS Mesoamerican Food Security Early Warning System
Sistema Mesoamericano de Alerta Temprana para Seguridad Alimentaria

The MFEWS

Central America Weather Hazards and Benefits Assessment

For

June 12 – June 18, 2008



1) Remnants of tropical storms Alma and Arthur continued to cause heavy showers in the early part of the June 5 – 11 observation period. Later in the period, a tropical wave positioned itself over northern Guatemala causing moderate to strong thunderstorms. Though tropical waves have the potential to gain energy and develop into tropical storms, it posed no threat to the region and continued moving westward. Rains are expected to taper off this week near the Lake of Izabal and remain heavier in southwestern Guatemala and further south in Nicaragua.

2) High river levels and saturated soils have put the southern mountainous departments of Escuintla, Suchitepequez, Retalhuleu, San Marcos, Solola and Quetzaltenango at risk for flash floods and mudslides. Though rainfall has tapered off recently, significant accumulation is expected during the June 12 – 18 observation period for these mountainous areas.

Hazards Assessment Text Explanation:

For the entirety of the apante season and much of the primera season, rainfall totals for the country of Guatemala have been quite high and abundant with rainfall anomalies in some areas in excess of 200 mm above average. This has led to high river levels, saturated soils and concerns of flooding and landslides. However, rain has begun to taper off. The northern half of the country remains above average; this is likely attributed to the occurrence of Tropical Storm Arthur which brought rains to northern Guatemala. In the southern half of the country negative anomalies are now reaching 300 mm below average. This includes coastal Guatemala where ground reports state that there is a "small area of stress due to the lack of water," areas that were once of greatest concern for flooding are turning into the same areas that are beginning to have deficits. This is beneficial as far as easing conditions and reducing risks of flooding and landslides, but a continuance of the current trend can negatively impact water resources for crops, livestock and humans. (Figure 1) The departments of Chimaltenango and Sacatepequez have seen a decrease in rain, but because they are located near the volcano, the land is fertile and ground conditions are very good.

Both Honduras and Nicaragua have been well below average in rainfall totals since the apante season and this trend has carried over into the primera season. However, since the end of May, rainfall anomalies have been improving. The occurrence of Tropical Storm Alma that formed south-southwest of Nicaragua, made landfall in the Nicaraguan department of Leon and moved northward directly over Honduras dumping its heaviest rainfall totals to the east, in addition to this past week's favorable rainfall totals have brought about improvement. At present, most of the two countries still remain below normal, but negative anomalies are shrinking.

There were soil moisture deficits in both Costa Rica and the Chiriqui province in Panama due to the weak primera rains. Rainfall has increased in the last two weeks causing soil conditions and water resources to improve.

Primera Season Precipitation Anomalies
Valid: May 1 – June 10, 2008

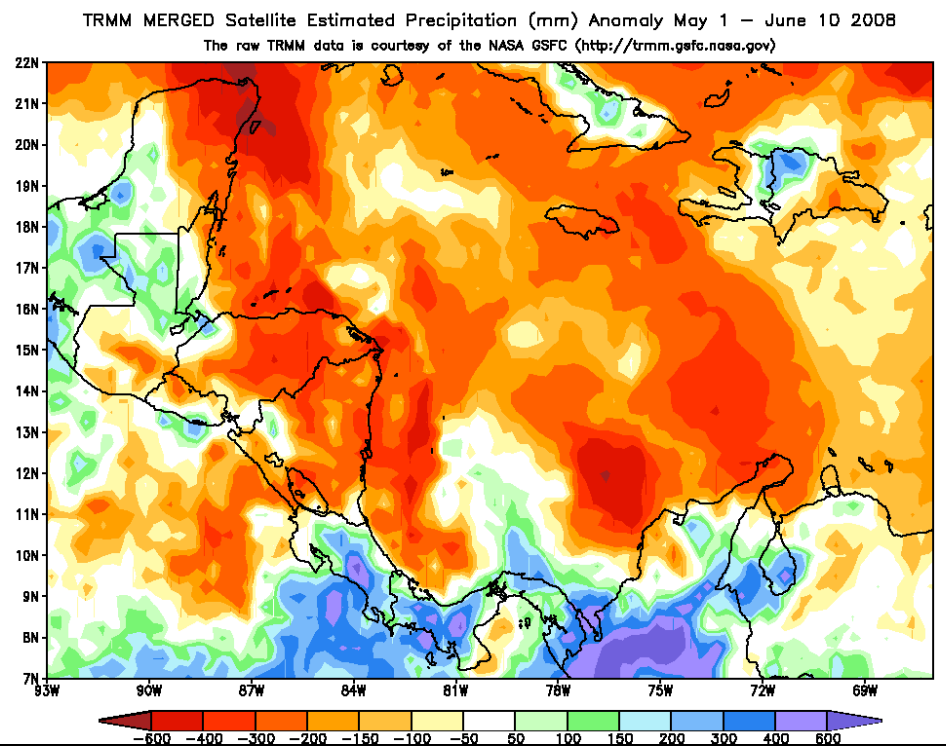


Figure 1
Source: NOAA

The evaluation of climatological threats of MFEWS include the participation of the central and local offices of MFEWS, NOAA-CPC, USGS, NASA, INETER of Nicaragua, Meteorological Service of Honduras, IMN of Costa Rica, INSIVUMEH of Guatemala, ETESA of Panama, NMS of Belize and SNET of El Salvador. Any questions or comments on this product can be directed to Wassila Thiaw@noaa.gov