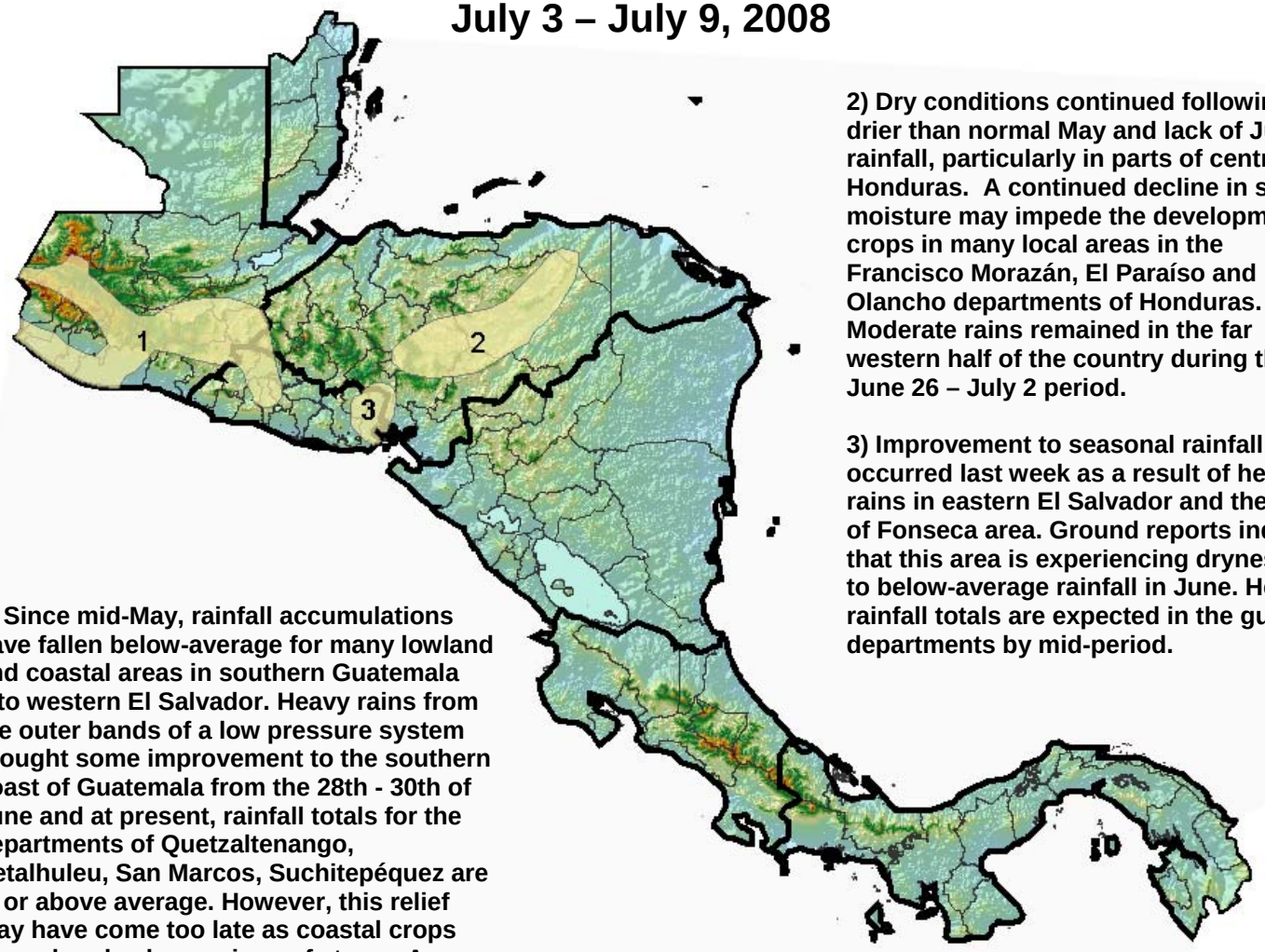
MFEWS Mesoamerican Food Security Early Warning System
Sistema Mesoamericano de Alerta Temprana para Seguridad Alimentaria

The MFEWS

Central America Weather Hazards and Benefits Assessment

For

July 3 – July 9, 2008



1) Since mid-May, rainfall accumulations have fallen below-average for many lowland and coastal areas in southern Guatemala into western El Salvador. Heavy rains from the outer bands of a low pressure system brought some improvement to the southern coast of Guatemala from the 28th - 30th of June and at present, rainfall totals for the departments of Quetzaltenango, Retalhuleu, San Marcos, Suchitepéquez are at or above average. However, this relief may have come too late as coastal crops have already shown signs of stress. A FEWS NET assessment later this week will explore the likelihood of crop recovery. A return of heavy coastal rains is expected during the observation period.

2) Dry conditions continued following a drier than normal May and lack of June rainfall, particularly in parts of central Honduras. A continued decline in soil moisture may impede the development of crops in many local areas in the Francisco Morazán, El Paraíso and Olancho departments of Honduras. Moderate rains remained in the far western half of the country during the June 26 – July 2 period.

3) Improvement to seasonal rainfall totals occurred last week as a result of heavy rains in eastern El Salvador and the Gulf of Fonseca area. Ground reports indicate that this area is experiencing dryness due to below-average rainfall in June. Heavy rainfall totals are expected in the gulf departments by mid-period.

Hazards Assessment Text Explanation:

During the June 26 – July 2 observation period tropical activity picked up in the eastern Pacific. This brought about the formation of three tropical depressions, Hurricane Boris and Tropical Storm Cristina. All of the systems were situated west of the Central America region except Tropical Depression 04E. It formed southwest of Guatemala and began as an unorganized low pressure area. Large outer bands of convection brought heavy rains to Nicaragua, El Salvador and Guatemala's southern coast. Though the rainfall totals associated with this system were significant little is expected in terms of crop and soil condition improvement. For the Primera season (May – August), precipitation deficits have been significant for southern Guatemala, central Honduras, and eastern El Salvador.

Field reports indicate that there is a small area of stress along the southern Guatemalan coast and that if dryness continues until the Canicula period, this may negatively affect crops that are in vegetative stages. In central Honduras, precipitation levels in many local areas are considerably below normal, having recieved less than 25% of their average rainfall by mid-June. Continued dryness could potentially lead to a decrease in water resources, and impede the development of maize and sorghum crops in the Francisco Morazán, El Paraíso and Olancho departments of Honduras. El Salvador is experiencing dryness also due to occasional periods of consecutive days having little to no rain. This dryness is situated in the eastern departments of the country into Honduras around the Gulf of Fonseca.

The persistent dryness observed in the northern Central America region during most of the Primera is largely due to the near stationary high pressure ridge that was located in the Gulf of Honduras during the month of May followed by another high pressure ridge situated over Nicaragua during the month of June. High pressure systems are known to cause "fair weather" meaning no clouds or rain. Unfortunately, this high pressure ridge is situated in a manner which is preventing rain from reaching the valley areas located along the Motagua River where Guatemala is experiencing dryness, especially in the east. Other moisture sources for the country coming from the north and south are doing well due to orographic lifting in which tall land features, such as mountains, cause quick forming convection. However, these moisture sources are not strong enough to migrate over the Sierra Madre mountain ranges and bring rainfall to the drier lower elevations.

GFS 7 day Forecast
Valid Jul 2 – Jul 9

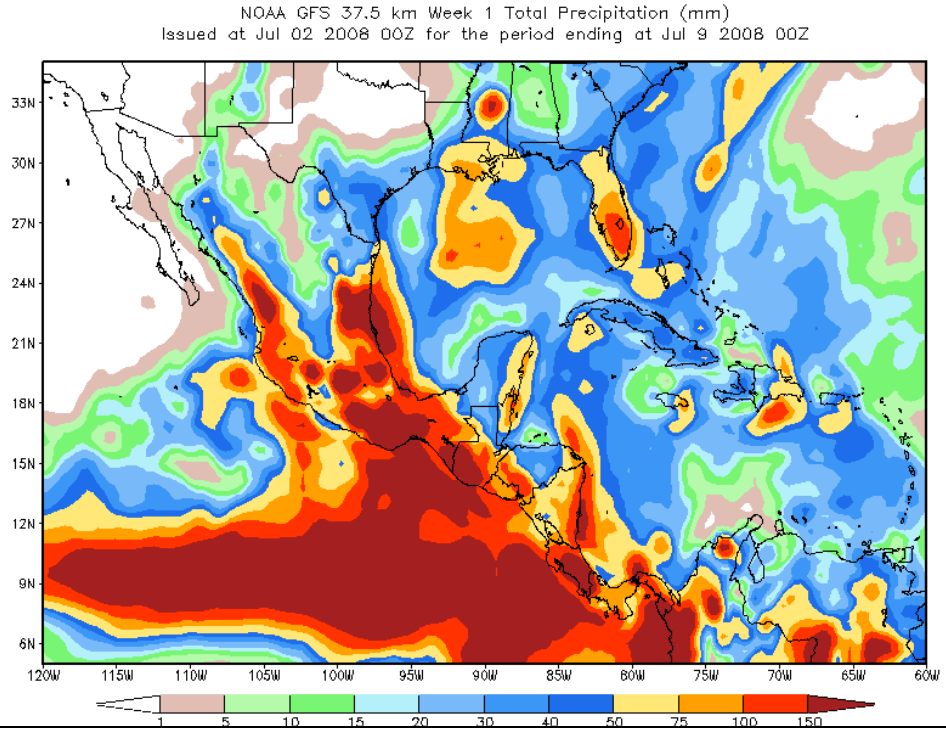


Figure 1
Source: NOAA

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