

ZAMBIA METEOROLOGICAL DEPARMENT

FLASH FLOOD GUIDANCE MONITOR

Valid -6hrs

Time of issue: 12:00UTC 14:00hrs Local Time /Date:06.02.2017

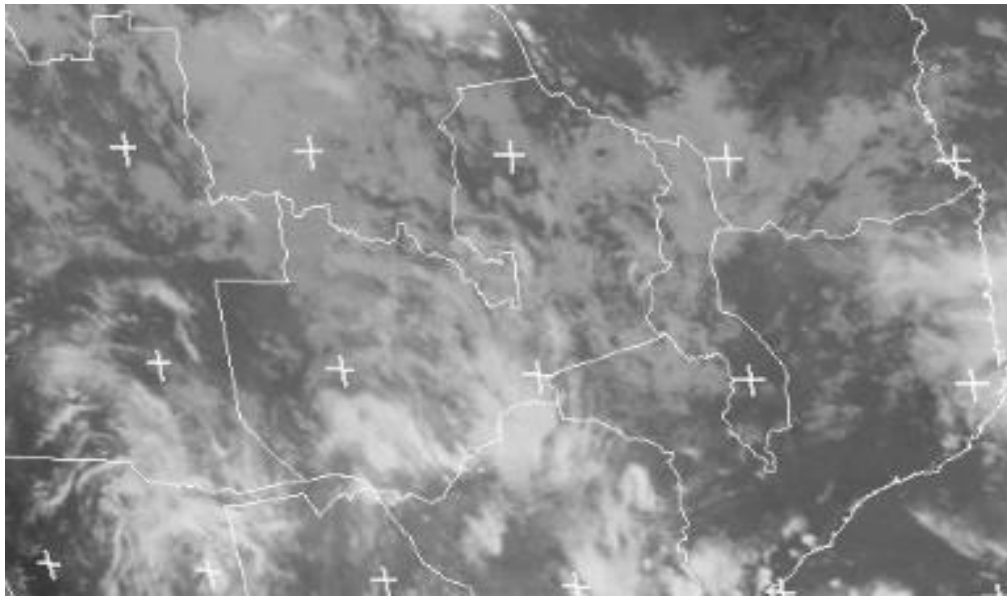


Figure 1: IR 11.5 from Eumesat

The infrared satellite image obtained at 1100hrs local was indicating convective development (Thunder showers bringing clouds) over Southern and Lusaka Province linking up with another convective development over northern Namibia.

GENERAL SITUATION

The InterTropical Convergence Zone (ITCZ) is oscillating about the southern parts of Zambia. The Angola Low pressure system over the South-Western part of Zambia is expected to

intensify rainfall activities over this area. The Provinces to be affected by the system include Lusaka, Southern and southern districts of western Province

Forecast for Afternoon and Evening:

Luapula, Muchinga and Northern Provinces, northern districts of Western and western districts North-western: Partly cloudy to cloudy with showers and thunderstorms in few places

The Rest of Zambia: Cloudy with thundershowers in places. Heavy falls expected over Lusaka, southern and southern districts of Western Province

Average Soil Moisture

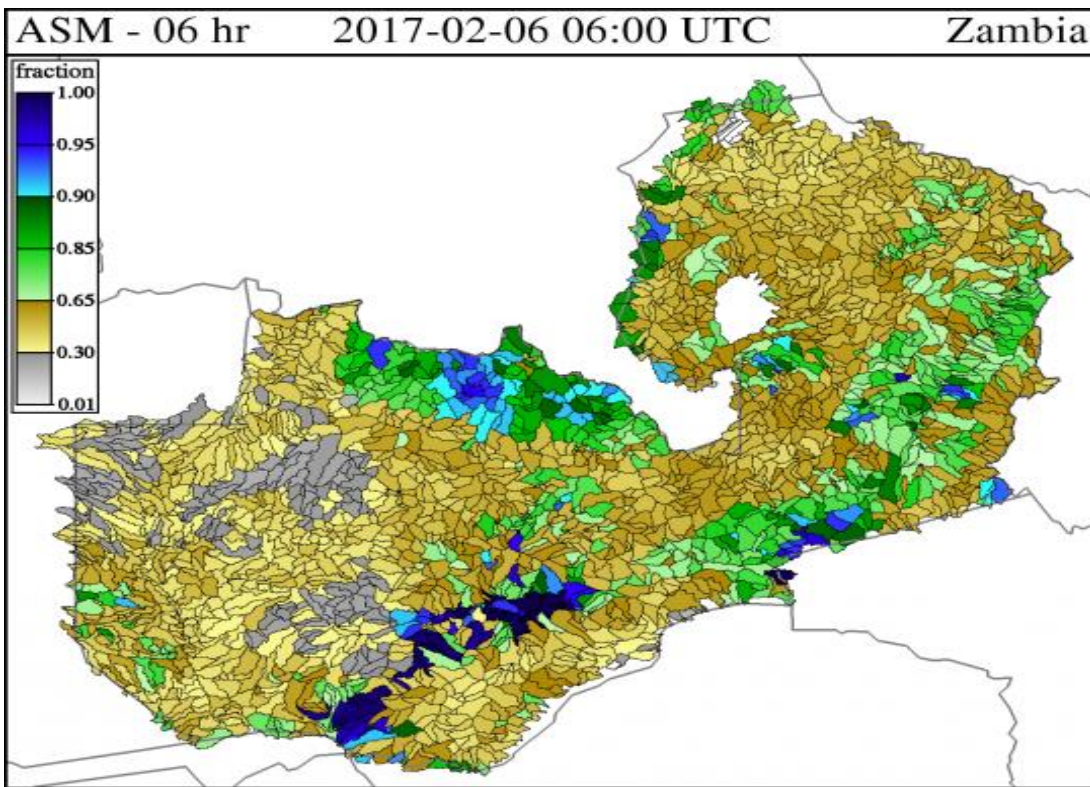


Figure 2: Average Soil Moisture

The average soil Moisture obtained at 0600 UTC (0800hrs Local time) is indicating 100% saturation over Lusaka, Kafue, Mazabuka, Monze and Pemba areas. The eastern districts of north-western province (Solwezi), parts of Copperbelt (Chililabombwe and Chingola) areas have an Average Soil Moisture saturation of 95%. The Eastern Province has also improved in ASM with much of the area recording 65-85%. However the northern districts of Western and western districts of North-western Province have seen a reduction in ASM due to reduction rainfall activities over these areas in last 4 days.

Flash Flood Guidance (FGG)

The flash flood guidance Map shows that Lusaka requires 15mm of rainfall to reach the bank full while many districts of southern province require about 30mm of rainfall to cause a flash **flood in the next 6hrs (See figure 3)**. However North-western and Copperbelt despite having near saturation average soil moisture and FFG of 30mm, this may not be attainable today as the rain brings system is not active over these areas. The north-eastern parts of Zambia despite having high FGG the probability of flash flood occurrence are quiet high because of the shallow soil layer which can easily get saturated.

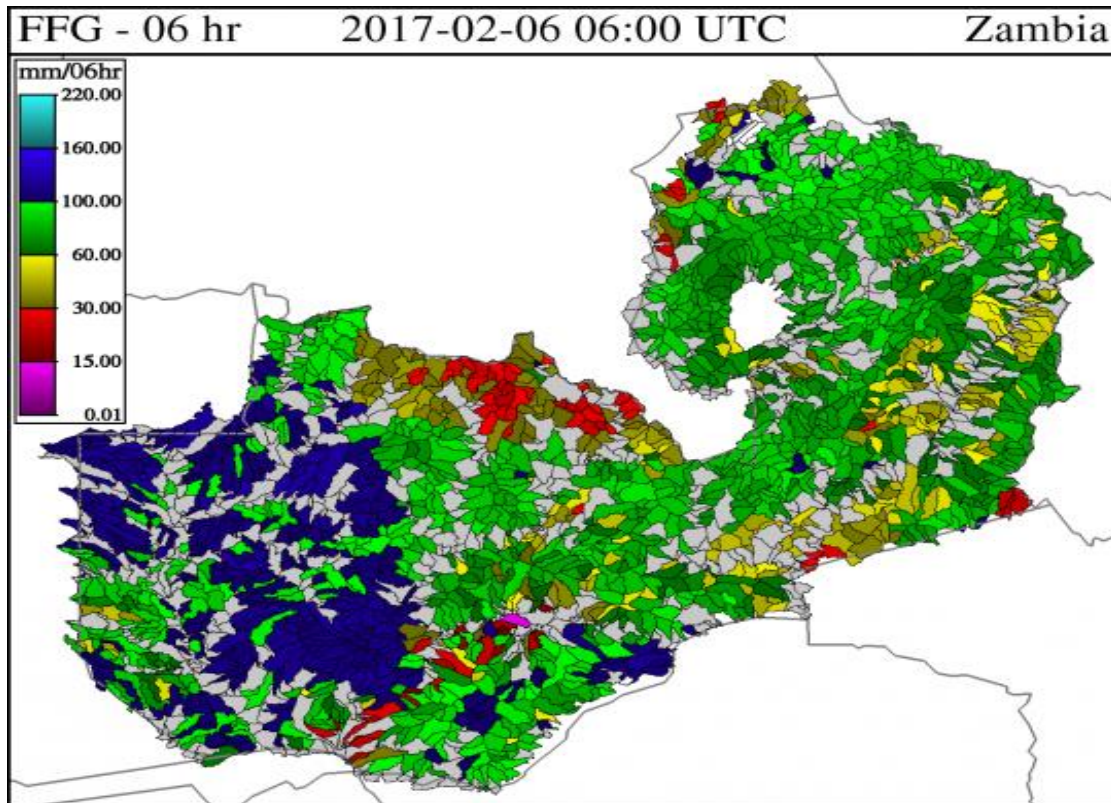


Figure 3: Flash Flood Guidance for 6hours.

Possible areas of Flash Floods

Considering the weather forecast given, Average Soils Moisture and Flash Flood Guidance System the areas with possible flash floods are circled below and categories according to the percentage probability of Flash floods occurrence. (See figure 4 & 5). The People along the river banks of the Kafue basins and lower Zambezi should be on lookout for not only flash floods but also floods.

