

ZAMBIA METEOROLOGICAL DEPARTMENT

FLASH FLOOD GUIDANCE MONITOR

Valid -6hrs

Time of issue: 14:00UTC 16:00hrs Local Time /Date:03.01.2017

GENERAL SITUATION

The Inter Tropical Convergence Zone (ITCZ) is oscillating beyond the southern borders of Zambia allowing moist and unstable Congo airflow over much of the Country, hence increasing rainfall activities over much of southern half of Zambia.

Satellite image captured at 15:30hrs (13:30hrs UTC)

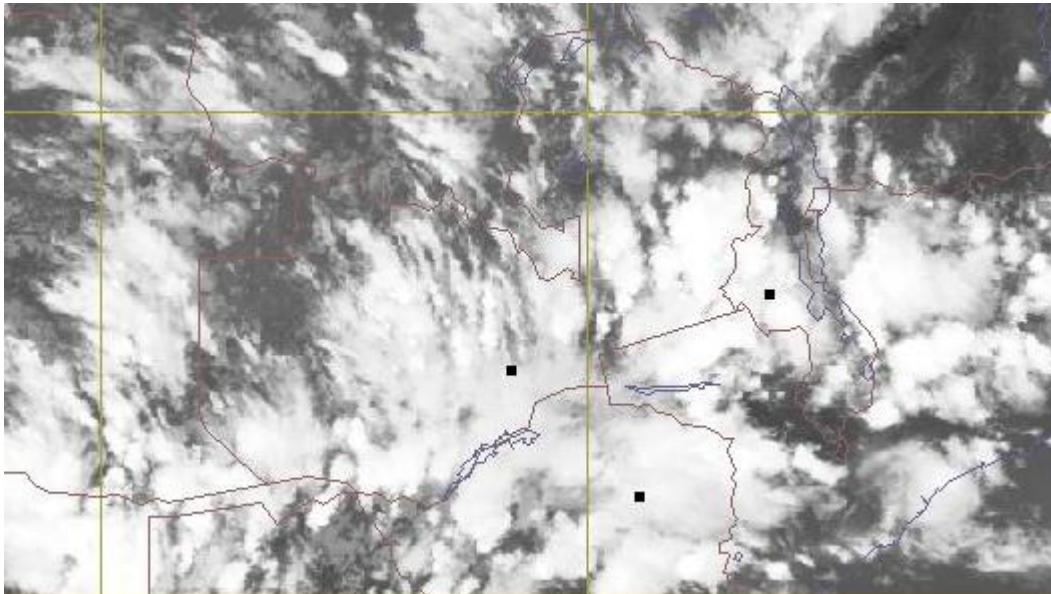


Figure 1: EUMETSAT IR channel 13

The satellite image shows the current situation of the well developed cloud band in line with general situation **(See figure 1)**

Table 1 Forecast rainfall time.

Province	Night	Morning	Afternoon/Evening
Northern			X
Luapula			X
Muchinga			X
Eastern			X
Central			X
Copperbelt			X
Lusaka	X	X	X
Southern	X	X	X
Western	X	X	X
North-western	X	X	X

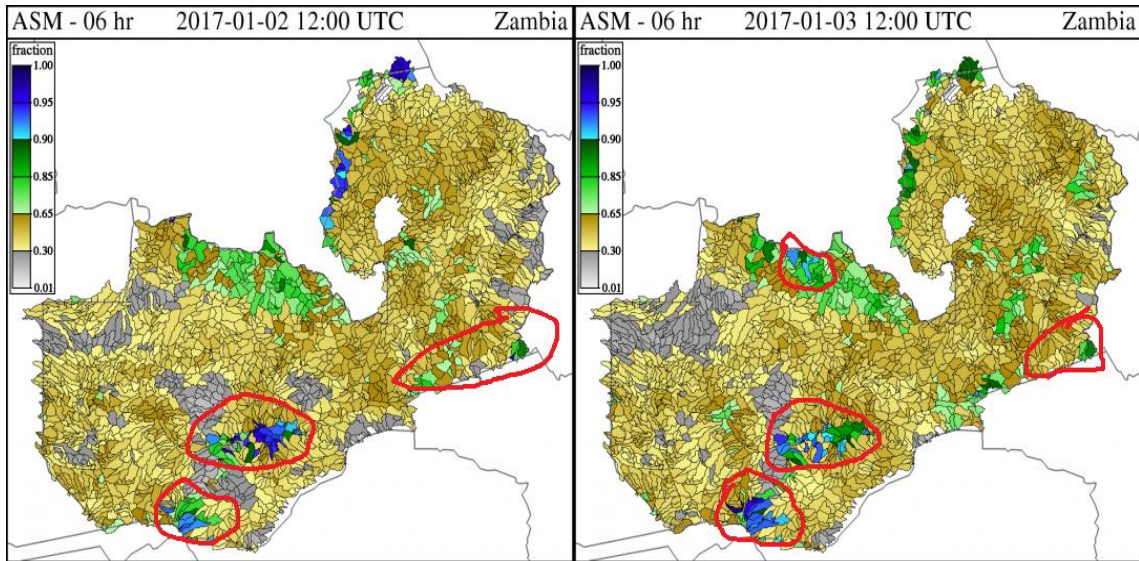


Figure 2: Average Soil Moisture

The Average Soil moisture (ASM) maps generated at 14hrs for 2nd and 3rd January, 2017 an increase in ASM with the circled areas showing a near saturation (95-100%). The areas over southern province have maintained a higher ASM from the last 24hrs. **(See figure 2)**

Flash Flood Guidance (FGG)

The amount of rainfall required in the next 6 hrs to reach the bank full (possible level of flash flood) shows less amount need over areas that are already saturated (Circled). However Lusaka and Chipata are included despite the soil moisture being below 90% because of shallow soil layers and the areas are within intense convective activities that are likely to cause heavy falls **(see figure 3 & 1)**

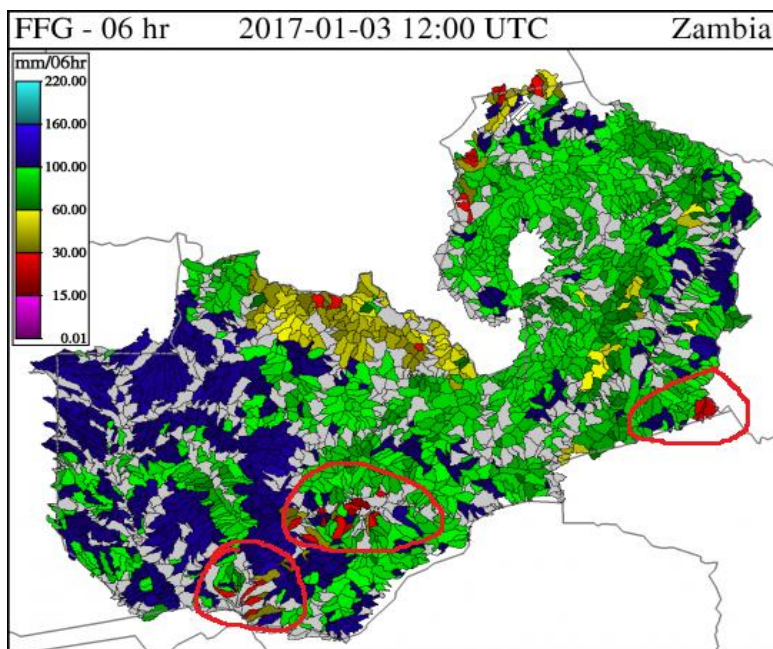


Figure 3: Flash flood guidance for 6hrs

Possible areas of Flash Flood

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)**



Figure 4: Probability of Flash flood occurrence

Districts	Category of Flash flood probability
Lusaka, Chipata, Chadiza, Livingstone, Mazabuka, Monze, Choma, Kazungula, Katete,	Warning
Kasama, Chinsali, Mumbwa, Serenje, Mkushi	Alert
The Rest of Zambia	Watch

Figure 5: Category of flash flood probability.