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### DEFINITIONS OF ACRONYMS

**RFE** = Rainfall Estimates  
**NDVI** = Normalized Difference Vegetation Index  
**SDVI** = Standardized Difference Vegetation Index  
**ADVI** = Absolute Difference Vegetation Index  
**LTA** = Long Term Average (Historical Mean)  
**Dekad** = Ten Days

### Nigerian Rainfall Estimate (March, 2017)

The Rainfall Estimate (RFE) derived from satellites revealed that the southwestern region of the country received higher rainfall amounts compared to other regions in the month of March, with areas such as the southern parts of Oyo State receiving exceptionally high amount of rainfall. The rainfall anomaly maps for the month of march (Figures 1a-c) support these observations by showing that the rainfall estimates of most areas in the southwestern region were significantly higher than the long-term RFE average.

Since vegetation development has been known to respond accordingly to the amount of rainfall in a particular area over a period of time, an overall improvement in vegetation for the southwestern region should be expected during the first dekad of April (April 01-11).

This period of expected vegetation improvement also corresponds to the beginning of growing season in the region, signified by abundant healthy vegetation due to



### HIGHLIGHTS

- Southwestern Nigeria received higher rainfall compared to other regions in March, 2017
- Above average vegetation development observed in Osun, Ekiti and Southern part of Oyo state in March 2017
- Negative RFE Anomaly conditions observed in Ebonyi and northern part of Cross-River States of Nigeria during March, 2017

adequate rainfall estimate capable of initializing normal plant development.

However, from the anomaly maps, a negative deviation from normal conditions was observed in the first two dekads of March in places like Ebonyi State and also in the northern part of Cross-River State when compared to historical RFE average. For both cropland and rangeland, irregular and below average rainfall characterized the month of March and is likely to result in reduced vegetation development in these areas.

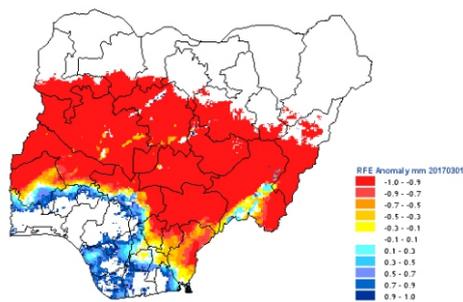


Figure 1a: RFE Anomaly Map for Nigeria February 21-March 01, 2017

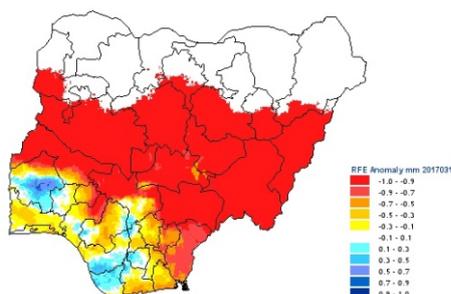


Figure 1b: RFE Anomaly Map for Nigeria March 01-11, 2017

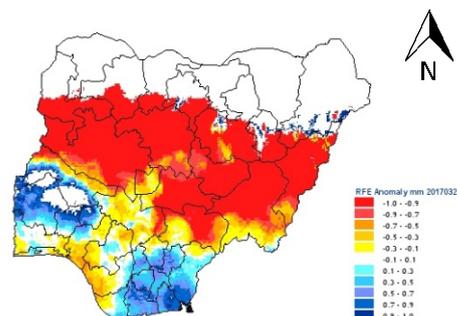


Figure 1c: RFE Anomaly Map for Nigeria March 11-21, 2017

Vegetation Development (NDVI) in Nigeria (March, 2017)

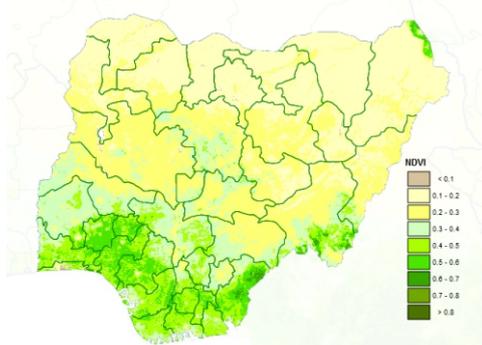


Figure 2a: NDVI Map of Nigeria February 21-March 01, 2017

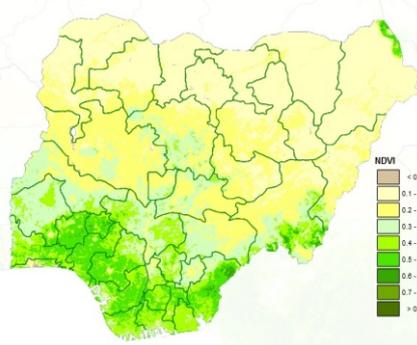


Figure 2b: NDVI Map of Nigeria March 01-11, 2017

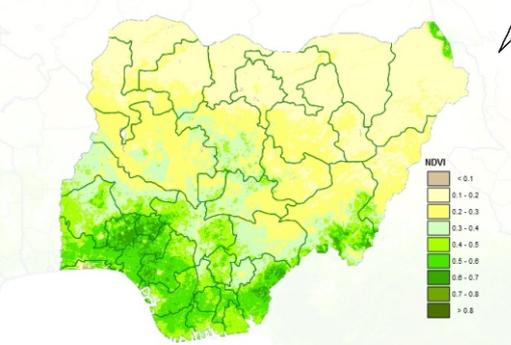


Figure 2c: NDVI Anomaly of Nigeria March 11-21, 2017

NDVI maps for the month of March, 2017 (Figures 2b-c) showed above average actual vegetation development (when compared to historical NDVI mean) for both cropland and rangeland in several parts of the country, particularly the southern part. Abundant greenness therefore characterized the month of March due to this obvious increased vegetation development, which can be readily observed in places such as Osun and Ekiti states, as well as in the southern part of Oyo State.

On the other hand, areas where below average vegetation development (negative deviation when compared to long term NDVI average) was observed in the month of March include Ebonyi State and parts of Cross-River State. For the March period, these areas were characterized by clearly reduced greenness in cropland and rangeland due to the said NDVI anomaly.

NDVI and RFE Analyses for Selected Areas

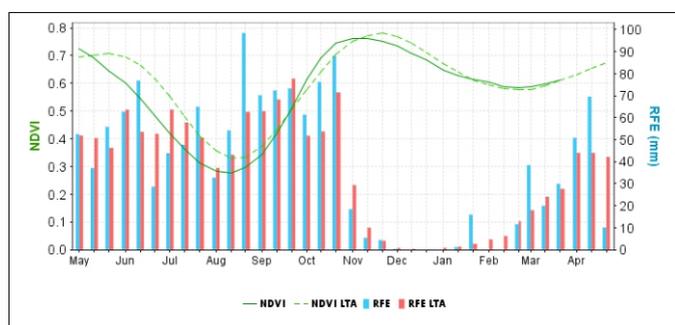


Figure 3: NDVI and RFE for Ife-South LGA, Osun State

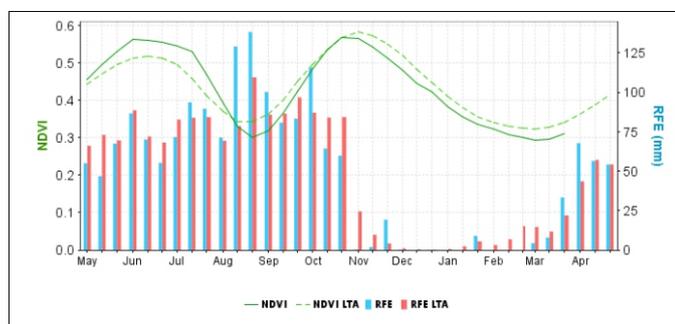


Figure 4: NDVI and RFE for Abakaliki LGA, Ebonyi State

(1) Ife-South Local Government Area, Osun State

To further emphasize the high amount of rainfall received by southwest Nigeria in the month of March, Ife-South Local Government Area recorded rainfall estimates well above historical RFE mean. This resulted in the NDVI of the area slightly exceeding the long-term NDVI mean during the first and second dekads of March (Figure 3), and it is expected to continue this trend of increase into April.

(2) Abakaliki Local Government Area, Ebonyi State

In Abakaliki Local Government Area, rainfall started late and in highly reduced quantity for the month of March. The rainfall received in the area during this period was significantly low, compared to the historical RFE (Figure 4). This implies a negative deviation from normal RFE conditions and the effect on vegetation development in the area can be largely felt from the last dekad of March. Poor vegetation development is also expected to continue into April due to the RFE anomaly in March.