### SAVING LIVES CHANGING LIVES



# **Rainy Season Monitoring**

World Food Programme Angola





## Highlights

- Southern provinces were the most affected by the shortage of rain in December 2021.
- Lowest levels of vegetation cover in the provinces of Benguela, Huambo, Namibe, Huíla and Cunene and the coastal zone of Cuanza Sul.
- Above average rainfall in northwest Angola and parts of Cuanza Sul, Benguela, Huambo, Huíla and Moxico provinces.

## Methodology

The report analyzes rainfall and vegetation cover trends based on the remote rainfall monitoring and Normalized Difference Vegetation Index (NDVI) available on the World Food Programme's DataViz Platform (dataviz.vam.wfp.org). The NDVI is an indicator of vegetation cover; therefore, it can be used to predict agricultural production and grazing conditions as well as to monitor drought. For each geographic region, the precipitation and NDVI data are analyzed by comparing the normal situation values (average values) with the values observed in the present season. The analysis assumes that there is no other phenomenon, such as fires, that could affect vegetation in addition to the climate.

### **Rainy Season Performance**

In December 2021, the southern provinces of Angola were the most affected by the lack of rainfall, namely the eastern part of Namibe province, the south of Huíla province, Cunene province and the southwest of Cuando Cubango province, which received 40 % to 60% of average precipitation. While in the northeast and northwest of Angola, some parts of the provinces of Cuanza Sul, Benguela, Huambo, Huíla and Moxico, received average or above-average rainfall. It is worth noting that some parts of Bengo, Kwanza Norte, Malanje, Uige, Luanda, Kwanza Sul received more than 180% of the average rainfall.

For the months of November and December 2021, the balance continues to show that the situation in the provinces of Namibe, Huíla, Cunene and Cuando Cubango was the most critical, with these areas receiving 60% to 80% of the average rainfall, while the northeast provinces, including parts of Moxico, Lunda Norte, Benguela and Cuanza Sul, continued with above-average rainfall.





Map 1: Rainfall anomaly for December 2021



Regarding NDVI levels, the data suggests that in December 2021, the situation was most critical in Benguela, Huambo, Namibe, Huíla, Cunene and some coastal areas of Cuanza Sul registering below 80% of the average vegetation cover. For the reporting period, the provinces of Cuando Cubango and Luanda presented the best situation in terms of vegetation cover compared with the average level.



Map 3: Vegetation cover anomaly from 3 to 19Map 4: Vegetation cover anomaly from 19December 2021December 2021 to 4 January 2022

In this issue we continue to analyse the rainfall and vegetation cover trends in the provinces most affected by the drought during in the rainy season 2020/2021, namely Cuanza Sul, Benguela, Huambo, Namibe, Huíla and Cunene, and in the provinces showing low rainfall levels in the current rainy season 2021/2022, namely Cuando Cubango, Bié, Moxico, Lunda Norte and Lunda Sul.













In the province of Cuanza Sul, the rainfall started in the last decade of August 2021 and was above average from the last decade of October 2021 to December 2021 (apart from the last decade of November). Vegetation cover has been below average since October 2021 but may rise in the coming weeks because of the good rainfall observed since October.

In Benguela rainfall started in the last decade of August 2021 and continued below average until the end of October 2021. From November 2021 the precipitation improved with some periods of above-average rainfall. The vegetation cover index remains below average but may rise because of the good rainfall observed in the last two months.

In Huambo province, rainfall started in the last decade of August 2021. Very low rainfall was registered in the last decade of September and second decade of October, but in mid-November and the first two decades of December 2021 precipitation rose above normal levels. The vegetation cover index remains below average.

Namibe started the rainy season in October 2021 and reached above-average rainfall levels in the first two decades of November 2021. In December 2021 it decreased to approximately 50% below average. As a result of poor precipitation, the vegetation cover index remains below average and moving further away.

In Huila province, the rains began in September 2021 and were below average until late October 2021. Some improvements were registered from November to December 2021. The vegetation cover index remains below average but growing in line with the average.





Cunene also saw the start of rainfall in October 2021 with above-average levels in the first two decades of November 2021, followed by a reduction to below average until the end of December 2021. The vegetation cover index remains slightly below average and moving further away from the average due to low precipitation.

The provinces of Lunda Norte, Lunda Sul, Bié, Moxico and Cuando Cubango, although they received little rainfall compared to the average levels in the months of November to December 2021, had the vegetation cover index above average, except for the province of Bié.

### **Food and Nutrition Security Implications**

The low rainfall, as compared to the average levels, observed in the southern provinces of Angola until the end of December 2021 can significantly reduce agricultural productivity, putting the vast majority of families who depend on agriculture as their main source of food and income at risk of food insecurity.

Vegetation cover in the provinces severely affected by drought in the past rainy season remains below average which suggests major challenges for livestock grazing if the situation does not improve. It should be noted that cattle are a very important means of livelihood in that region.



Updated data from mobile Vulnerability Analysis and Mapping (until 12 January 2022) indicate that the province of Huambo has the highest proportion of households with insufficient food consumption, at around 30% to 40%. Insufficient food consumption corresponds to poor or inadequate Food Consumption Score (FCS).



Very low (0-5%) Low (5-10%) Moderately low (10-20%) Moderately high (20-30%) High (30-40%) Very high (>40%)



#### Recommendations

The permanent monitoring of the impacts of the drought on food security and nutrition remains important in the most affected provinces, namely Cuanza Sul, Benguela, Huambo, Namibe, Huila and Cunene, in order to guide evidence-based decision making.

Interventions to mitigate the effects of drought in different areas, such as nutrition, water, agriculture, livestock, are still needed as the situation has not yet improved, especially in the southern provinces of Angola that still experience below-average rainfall.

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