



## **Ministry of Works and Transport Namibia Meteorological Service**

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### **STATEMENT ON THE 2021/22 RAINFALL SEASON AND ADVISORY**

*Issued: 23 September 2021*

During August 2021, the Sea Surface Temperatures (SST) over central and eastern equatorial Pacific Ocean was observed to be ENSO neutral but near to below average. On average, most models predict the development of a weak La Nina with 60% - 70% chance during our coming rainfall season which is expected to be short-lived. Negative SST's over the central and eastern equatorial Pacific Ocean are associated with enhanced rainfall over Namibia while positive SST's favor suppressed rainfall over Namibia.

The northwestern parts of the country, particularly Kunene and western parts of Omusati regions, experienced below average rainfall during the 2020/21 rainfall season. Therefore, monitoring efforts must be strengthened and maintained over this regions.

Statistical and Dynamic climate prediction models were used to determine the likelihood of above-normal, normal and below-normal rainfall for each area for the overlapping three-month periods i.e. October-November-December (OND), November-December-January (NDJ), December-January-February (DJF) and January-February-March (JFM). Below-normal is defined as within the driest third of the rainfall amounts of the thirty year (e.g. 1981 to 2010) rainfall amounts, while above-normal rainfall is defined as lying within the wettest third of recorded rainfall amounts and normal is the middle third, centered on the climatological median. The normal category is further subdivided into normal to above-normal and normal to below-normal categories to indicate bias to any of the two extremes.

The colours for each category indicate the probabilities of rainfall in each of the four categories, above-normal, normal to above-normal, normal to below-normal and below-normal. The first colour (blue) indicates the probability of rainfall occurring in the above normal category, the second colour (cyan) is for normal to above-normal rainfall, while the third colour (yellow) represent the probability for normal to below-normal rainfall and the last colour (brown) is for below-normal. The probabilities associated with the categories are provided as A for above-normal, N for normal and B for below normal.

### **Outlook**

During the period OND, most parts of the country are likely to receive normal to above-normal rainfall with the exception of the southwestern parts where below-normal to normal rainfall is expected.

For the intermediary periods of NDJ and DJF, the greatest part of the country is projected to receive normal to above-normal rainfall while the northwestern parts are likely to receive normal to below-normal rainfall.

This pattern of normal to above-normal rainfall is likely over most part of the country during the period JFM, while normal to below-normal rainfall is likely over the northwest with shrinking area as compared to the intermediary period.

**Areas of concern**

The northwestern part of the country, in particular Kunene and western parts of Omusati regions, experience suppressed rainfall during the 2020/21 rainfall, while normal to below normal rainfall is expected during the coming rainfall season. Therefore, we appeal to the community based organizations, media and sectorial experts to raise awareness of the forecast and potential implications for the affected communities.

The total content of the country’s major water supply dams is relatively high, and currently stands at 79% in comparison to 24% last season. Therefore, flood control management of dams for the purposes of flood mitigation is advised. Furthermore, strengthening continuous rainfall, dams and river levels monitoring for early warning is encourage.

**Seasonal Rainfall forecast for October 2021 to December 2021**

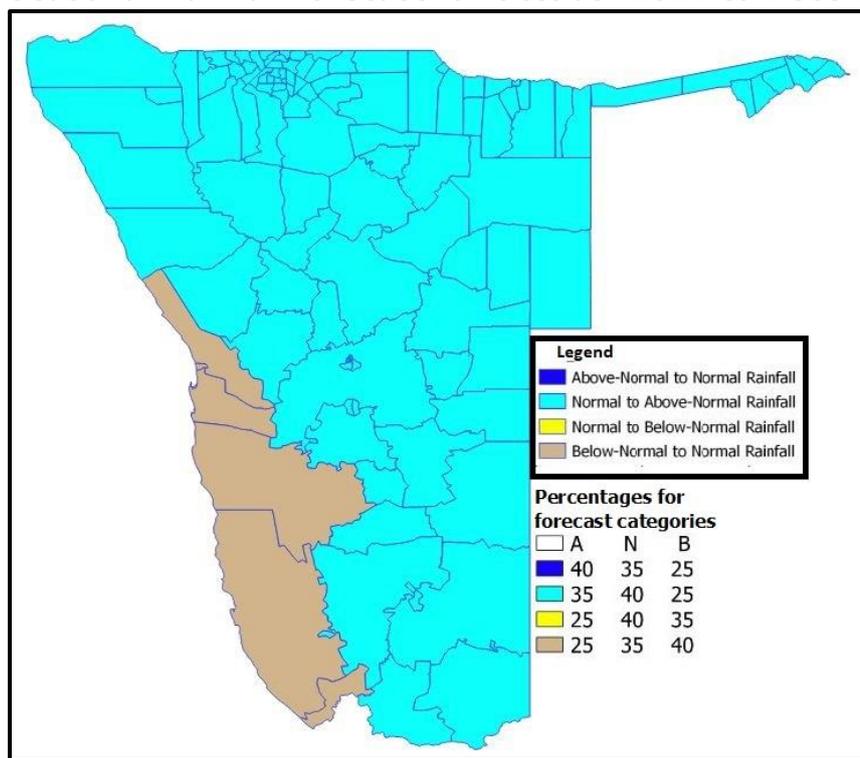


Figure 1

### Seasonal Rainfall forecast for November 2021 to January 2022

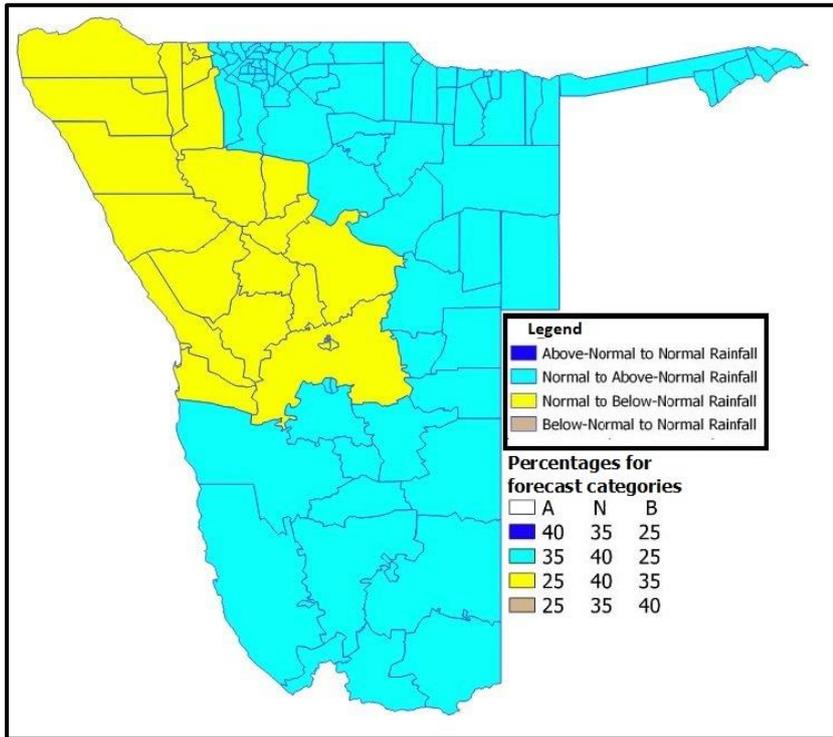


Figure 2

### Seasonal Rainfall forecast for December 2021 to February 2022

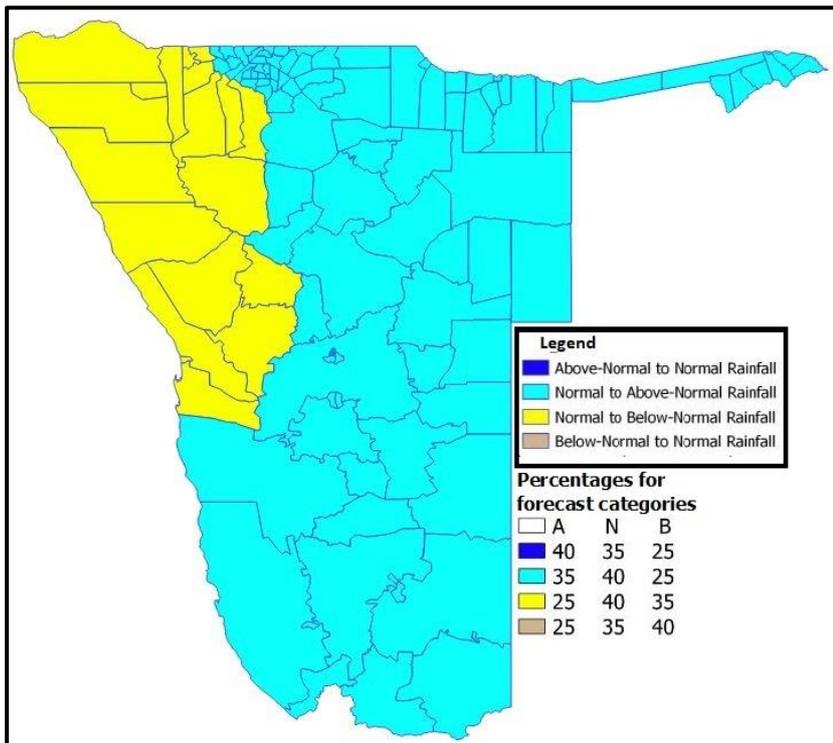


Figure 3

## Seasonal Rainfall forecast for January to March 2022

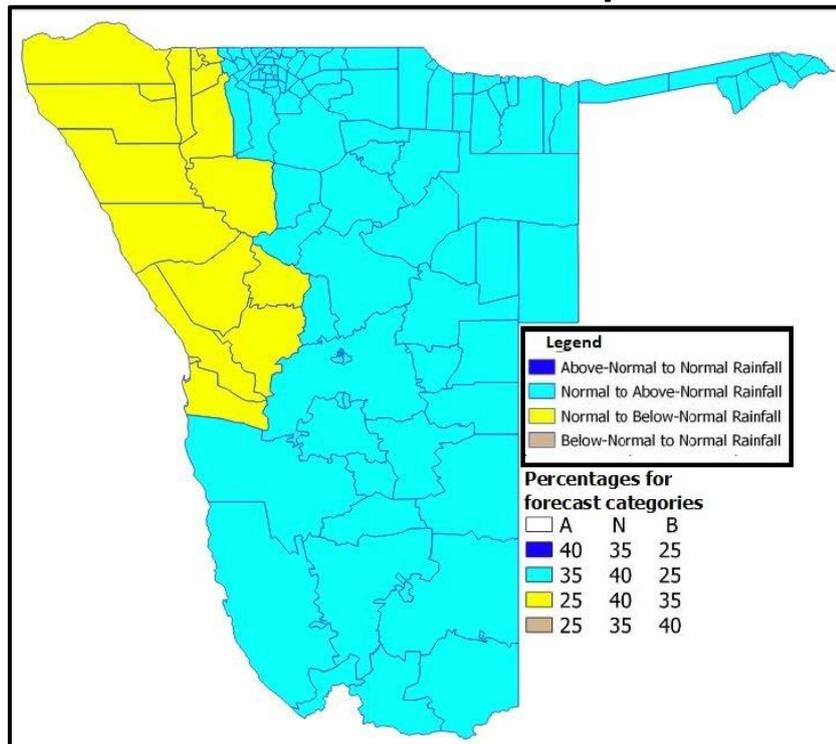


Figure 4

### ADVISORY BASED ON CLIMATE OUTLOOK

The seasonal rainfall forecast points to a normal to above-normal rainfall season for most of Namibia, expect the northwest areas where normal to below-normal rainfall is anticipated. Hence the possibility of flooding and flash flooding in the traditional areas is not ruled out. The likelihood of heavy rainfall events followed by hailstorms and lighting, which can be destructive to infrastructure and humans are anticipated.

#### Agriculture sectors

As normal to above-normal rainfall is expected over bulk of the country, farmers are advised to expect a potentially favorable rainfall season and should cultivate their crop fields to the fullest and use various seed varieties to take advantage of the potentially favorable rainfall expected. Livestock farmers can re-stock their herds as there will be good grazing associated with potentially favorable rainfall forecasted.

The northwestern parts of the country, farmers are advised to prepare for possible drought and are advised to put all the necessary measures in place to face potential drought, e.g. destocking, moving livestock to areas where better rainfall expected, avoiding cultivating the whole crop fields in order to minimize the risk/losses associated with potential drought.

#### Water sector

For the areas expecting normal to above-normal rainfall and the fact that majority of our water supply dams are at 70 to 80% of their full supply capacity, it is suggested that close and continuous seasonal monitoring of rivers, dams, flash floods and overflow of water from transboundary and interior catchments are exercised. The upscaling, updating and activation

of regional multi-hazard contingency plans for flood mitigation and response is suggested for the water.

Additionally, farmers and community at large are advised to take advantage of wet conditions by increasing rain and flood water harvesting and proactive dam storage.

The northwestern regions are advised to practice water conservation, demand management, and infrastructure management. Furthermore, efforts should be made to secure additional water resources for water supply and infrastructure e.g. pipelines, borehole drilling, and water transfers, desalination etc.

## **SPONSORSHIP**

This National Climate Outlook Forum was hosted virtually with support from Office of Prime Minister and close collaboration between Namibia Meteorological Service under the Ministry of Works and Transport, Namibia Hydrological Service, Namibia Food and Early Warning Information System and Directorate of Agriculture Production, Engineering and Extension Services under the Ministry of Agriculture, Water and Land Reform.