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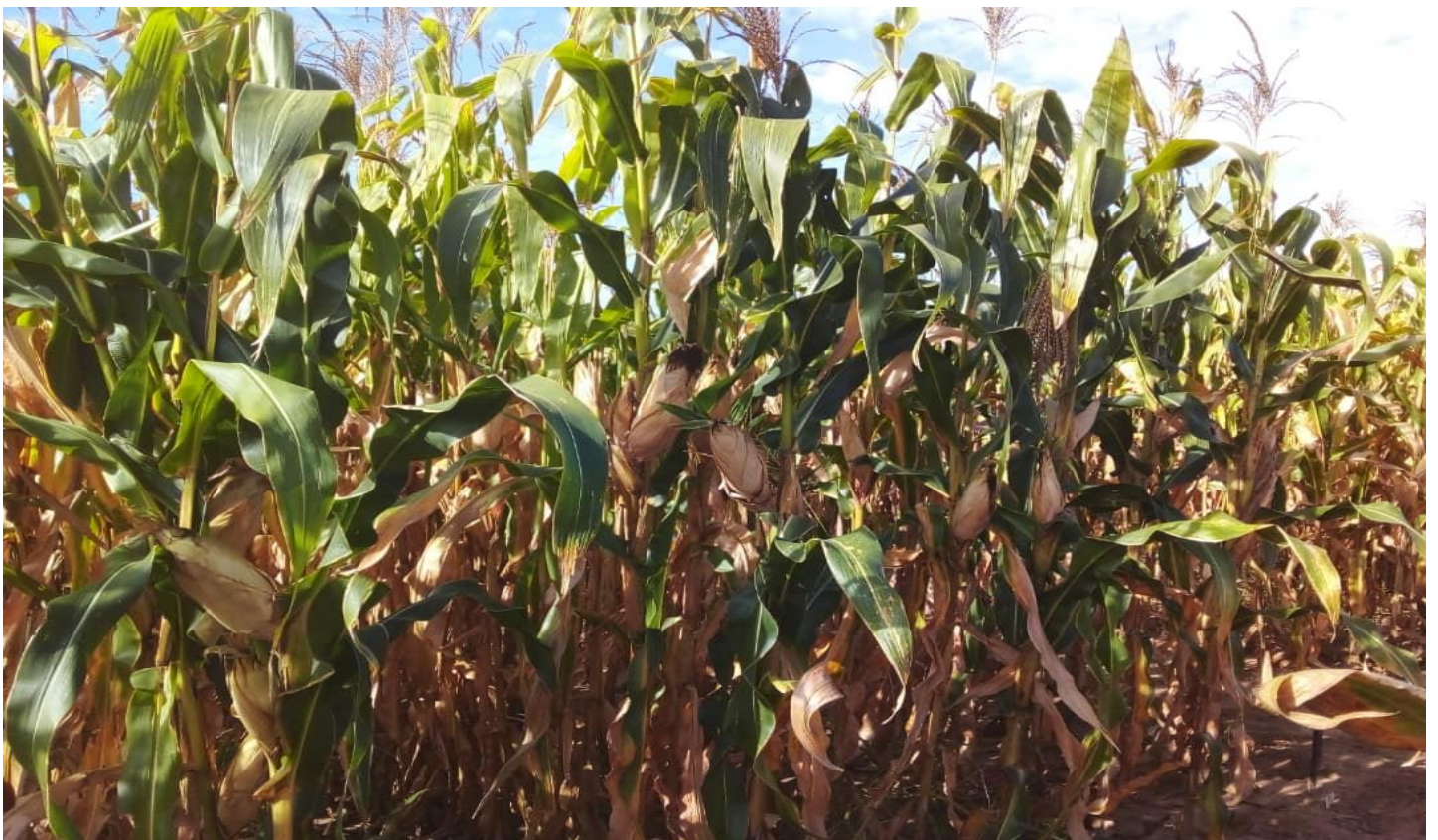
# **AGRONOMY AND HORTICULTURE MARKET DEVELOPMENT DIVISION**

**AGRONOMY MARKET DEVELOPMENT SUBDIVISION**

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## **WHITE MAIZE PRODUCTION FORECAST REPORT**

**HARVESTING/MARKETING SEASON: 2021/2022**



**Last Updated: 14 May 2021**

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## 1. INTRODUCTION

White maize is a staple grain crop grown mainly for human consumption in Namibia, and production mainly takes place in the Zambezi, Kavango, North Central (Etunda), Karst (Maize triangle), Central (Summerdown and Hochfeld) and South (Hardap) crop production zones of Namibia. It is produced under both rainfed and irrigation production, and planted as from October to January, for harvesting in April to October each year.

The marketing of locally produced white maize grains is managed through the White Maize Marketing Mechanisms/ Agreement signed by organised producers and millers. The marketing of white maize grains officially starts from 01 May until such time all the available grains are marketed to millers/silos.

In order to effectively and efficiently facilitate marketing of locally produced white maize grain, the production data is collected at the beginning of the planting season in order to estimate tonnage to be taken up by local millers/silos, and also to determine the expected date of close and open border period.

During 2020 marketing season, a total of 66 642 tons was marketed as from 01 May to 31 March 2021. However, a total of 82,735 tons is expected to be harvested and marketed during the 2021 marketing season, which represents an increase of 16,093 tons (24%), when compared to 2020 marketing season. The good harvest expected, is attributed to sufficient rainfall that was received in many crop growing areas of Namibia during the 2020/2021 planting season.

This report presents hectares planted and tonnage expected in different production areas in the 2021 marketing season. It further reports on the average yield per ha expected per production areas. The projected local supply versus average monthly domestic demand is also reported at the end of this report.

## 2. METHODOLOGY

The white maize production data was collected based on subjective yield estimation method, which involves estimation of crop yield based on the producer's experience of yield estimation and data was validated based on average yields per hectare per production area for the previous seasons. The data collection process involved sending of crop estimates data collection forms to the producers via email, and also made them available on NAB website. Once the forms have been completed by the producers, they were sent back to the NAB via email or hand delivery. Producers who did not respond via email were contacted telephonically.

In the Zambezi production area, producers' registration and crop estimates data collection was conducted through the Agricultural Development Centers (ADCs), with assistance from official of the Ministry of Agriculture, Water and Land Reform stationed at the ADCs. Radio announcements were made in different local languages, in order to invite producers who, wish to market white maize grains during 2021 marketing season to register with the NAB. Completed forms from the ADCs were thereafter sent to the NAB office for capturing. Data collected was entered and analysed in Microsoft excel, using both graphical and tabulation analysis. A total of 2,935 white maize producers were registered during the period February to May 2021.



## 3. PRODUCTION FORECAST

This section covers the demand analysis, tonnage expected, hectares planted, expected average yield per hectare, number of producers registered, and the historical white maize grain trade statistics on tonnage and prices.

### 3.1 Expected tonnage and the demand

Figure 1 below shows that, a shortage of locally produced maize is expected in May 2021 though insignificant, and as from June 2021 onwards, sufficient local production of white maize is expected. Even though insufficient supply of locally produced white maize is expected from August to December 2021, sufficient deliveries are expected to continue until November 2021 due to the over-supply forecasted for June and July 2021.

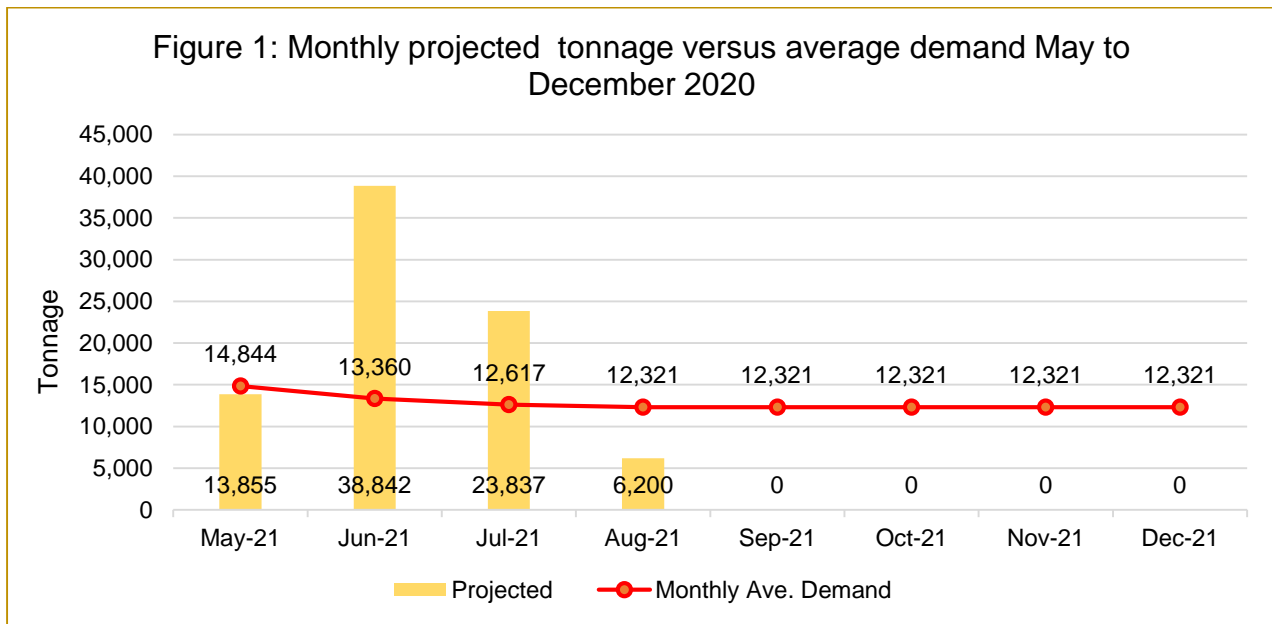


Figure 1: Expected to be marketed versus the monthly average domestic demand

According to figure 2 below, the biggest tonnage of white maize is expected in May, June and July 2021, mainly from the Karst and Central areas.

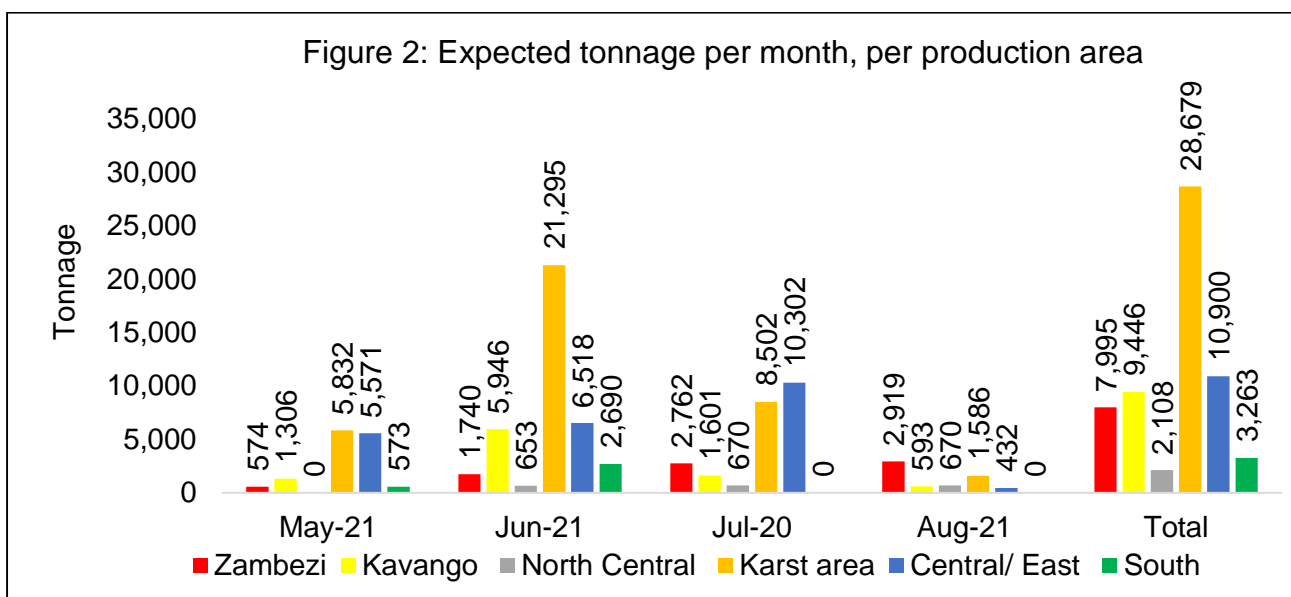


Figure 2: Expected tonnage per month per production area

Figure 3 below shows that, the biggest tonnage is expected from Karst area (37,214 tons), representing 45% of the total tonnage expected and the lowest tonnage is expected from the North Central area (1,993 tons), representing 2% of the total tonnage expected in 2021.

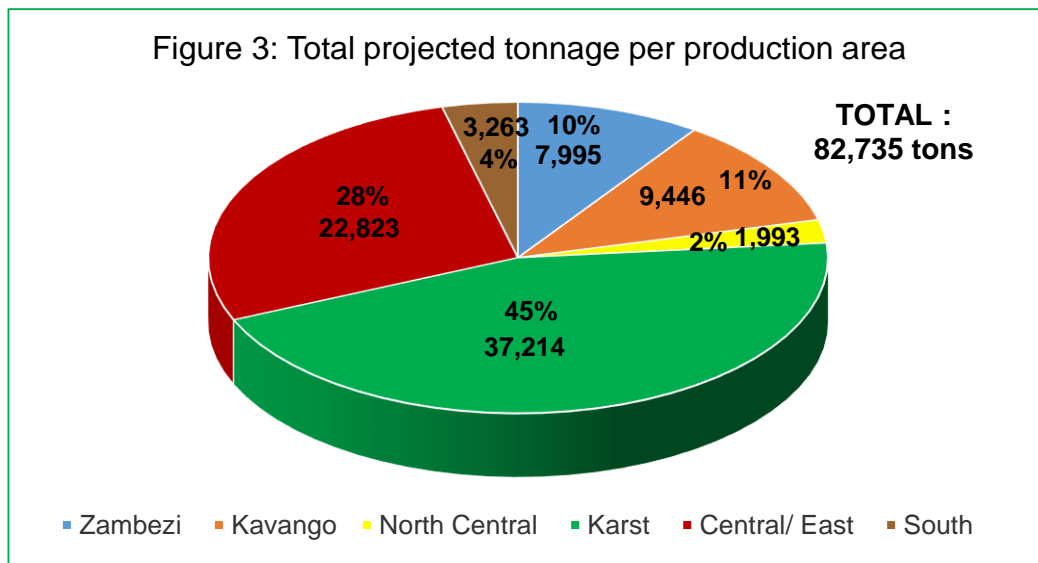


Figure 3: Total expected tonnage per production area, 2021 season

### 3.2 Expected tonnage from irrigated and rainfed production

According to figure 4 below, the biggest tonnage of white maize grain is expected to be harvested from rainfed production in the Karst area (25,693 tons) followed by Central area (10,213 tons), Zambezi (7,995 tons) and the lowest from Kavango (11 tons). In terms of irrigated production, the biggest tonnage is expected from Central area (12,610 tons), followed by the Karst area (11,521 tons) and lowest is from North Central (1,890 tons).

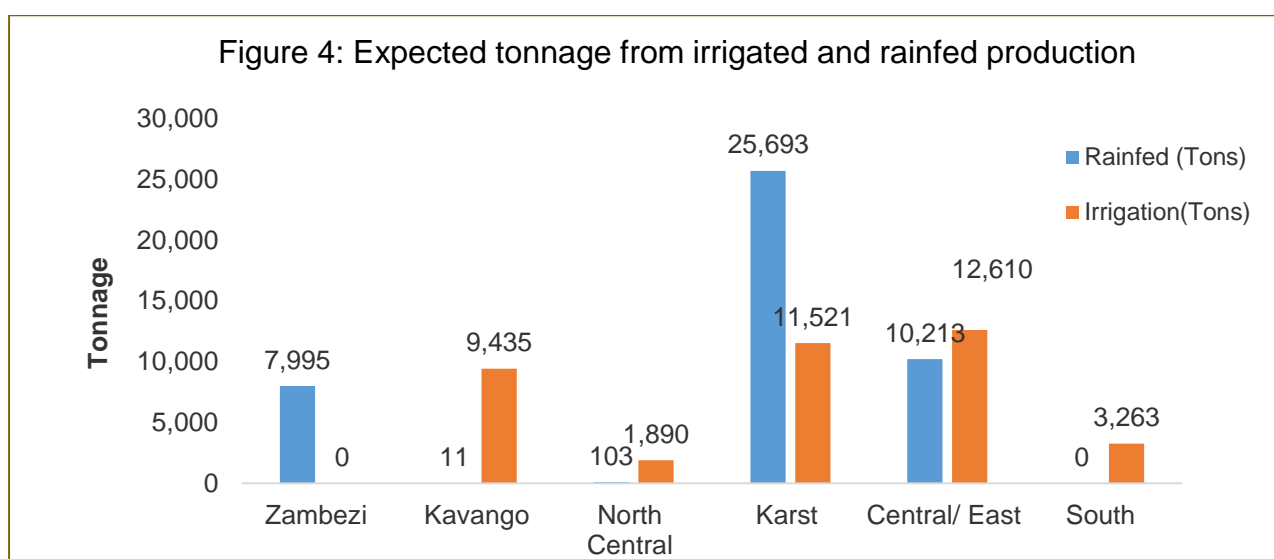


Figure 4: Expected tonnage from irrigated and rainfed production.

Figure 5 below shows that out of the total 82,735 tonnage of white maize expected to be harvested and marketed during 2021 season, 44,015 tons (56%) is expected to be harvested from rainfed production, while 38,719 tons (44%) from irrigated production.

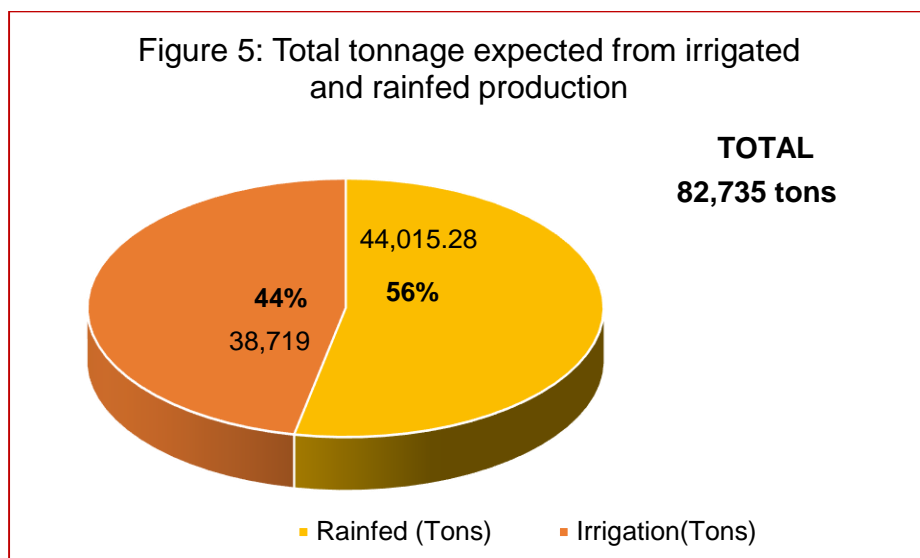


Figure 5: Total tonnage expected from irrigated and rainfed production

### 3.3 Hectares planted during 2020/2021 planting season

Figure 6 below shows that, the Kavango area planted the biggest hectares under irrigation (1,219ha) and lowest is North Central (210ha). In terms of rainfed, Karst is leading by 9,783ha, and followed by Zambezi (8,901ha) and lowest is Kavango (11ha).

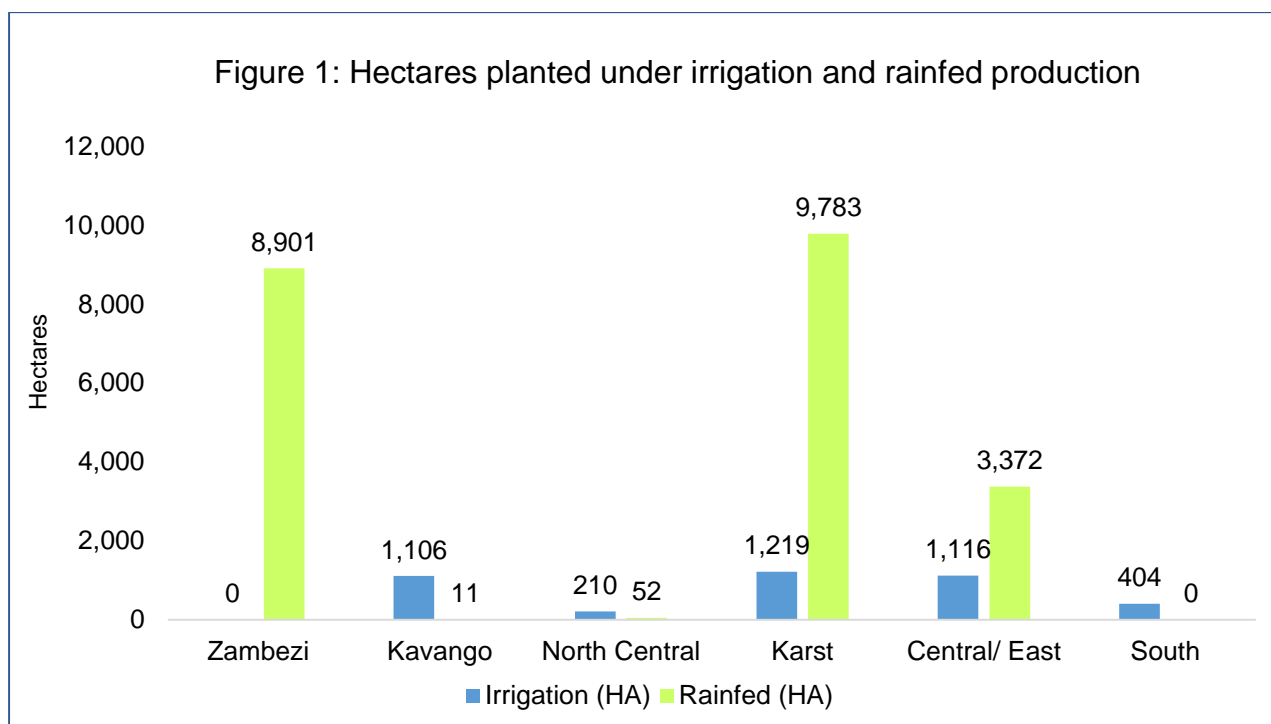


Figure 6: Total hectares expected to be harvested per area from irrigation and rainfed production.

Figure 7 below shows that a total of 26,174 ha was planted during 2020/2021 planting season, and of which 22,119 ha (85%) is rainfed, and 4,055 ha (15%) is under irrigation.

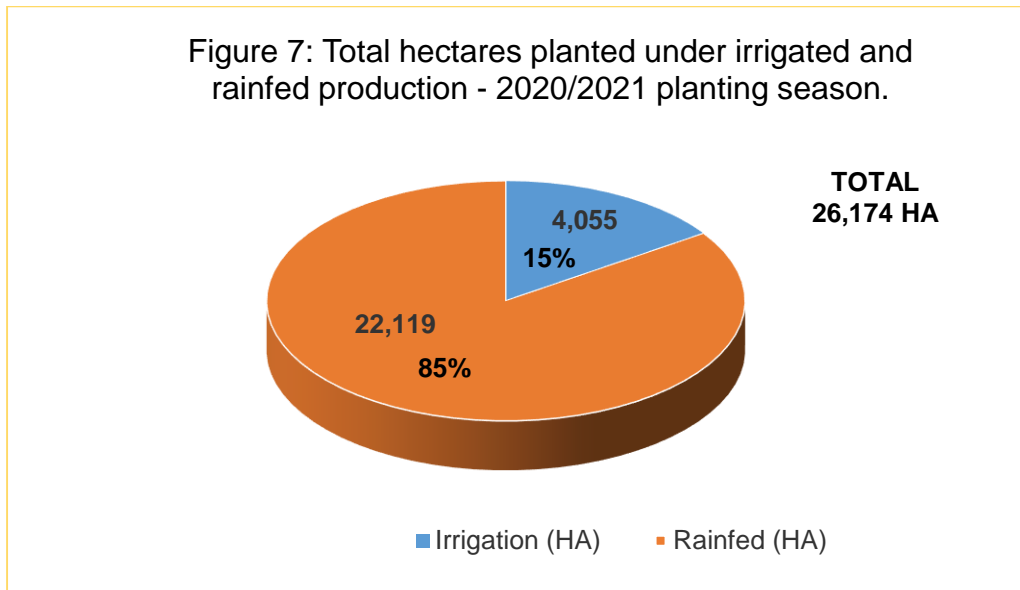


Figure 7: Total hectares planted under irrigation and rainfed production.

### 3.4 Forecasted average yield per hectare

In terms of irrigation, figure 8 shows that the highest average yield (11.30 ton/ha) is expected from Central area, while the lowest is expected from the South area (8.09 tons/ha). In terms of rainfed production, the highest average yield of 3.03 tons/ha is expected from Central area, 2,63 ton/ha expected from Karst area, and Zambezi area being the lowest expecting an average of 0.90 ton/ha.

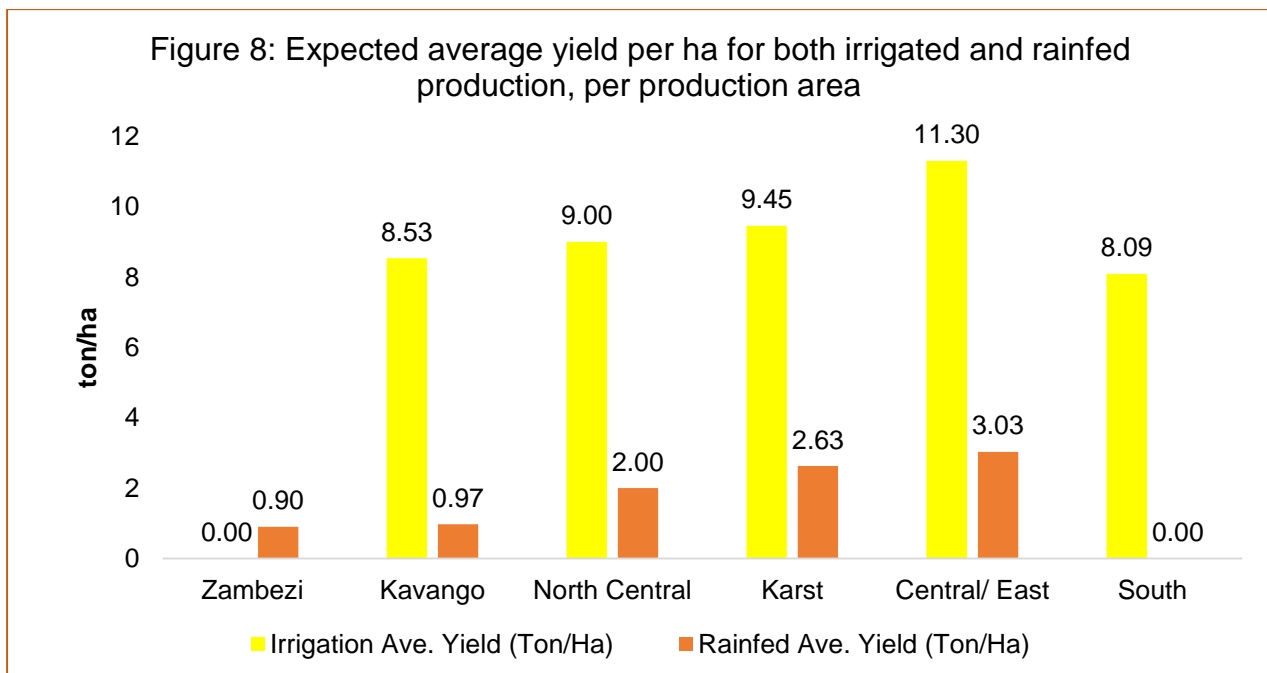


Figure 8: Expected average yield (tons\ha) for both irrigated and rainfed production.

Figure 9 below shows that the national expected average yield per hectare from irrigated production is 9.55 tons/ha, and 1.99 tons/ha from rainfed production.

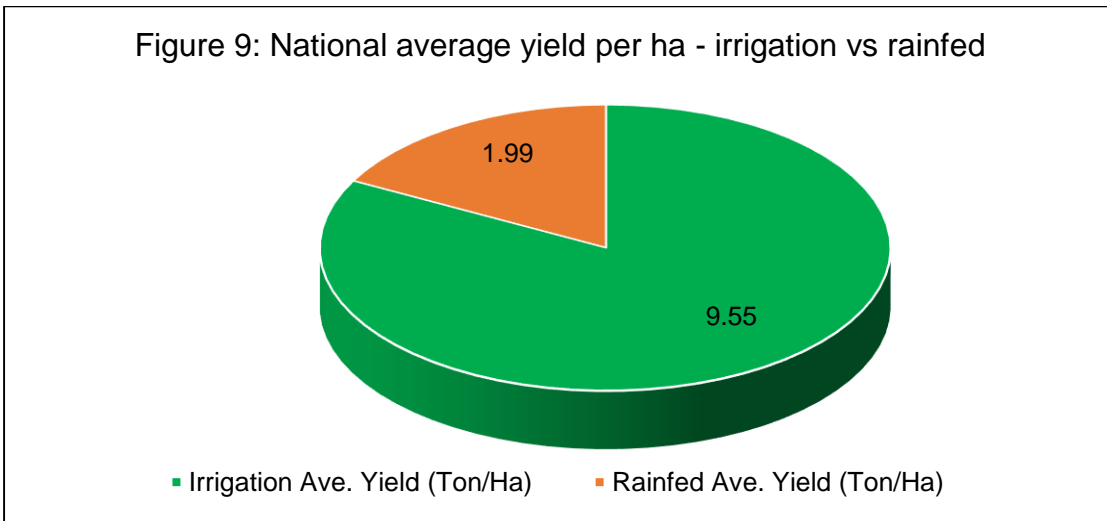


Figure 9: Total expected average yield per hectare (tons\ha).

## 4. COMPARISON TONNAGE AND HECTARES (2021 VERSUS 2020)

### 4.1 Rainfed and Irrigated tonnage - 2021 versus 2020

Figure 10 below shows that, the tonnage from rainfed production expected during 2021 season is 44,015 tons, and this shows an increase of 6,530 tons, when compared to the actual tonnage harvested in 2020 season under rainfed (37,485 tons).

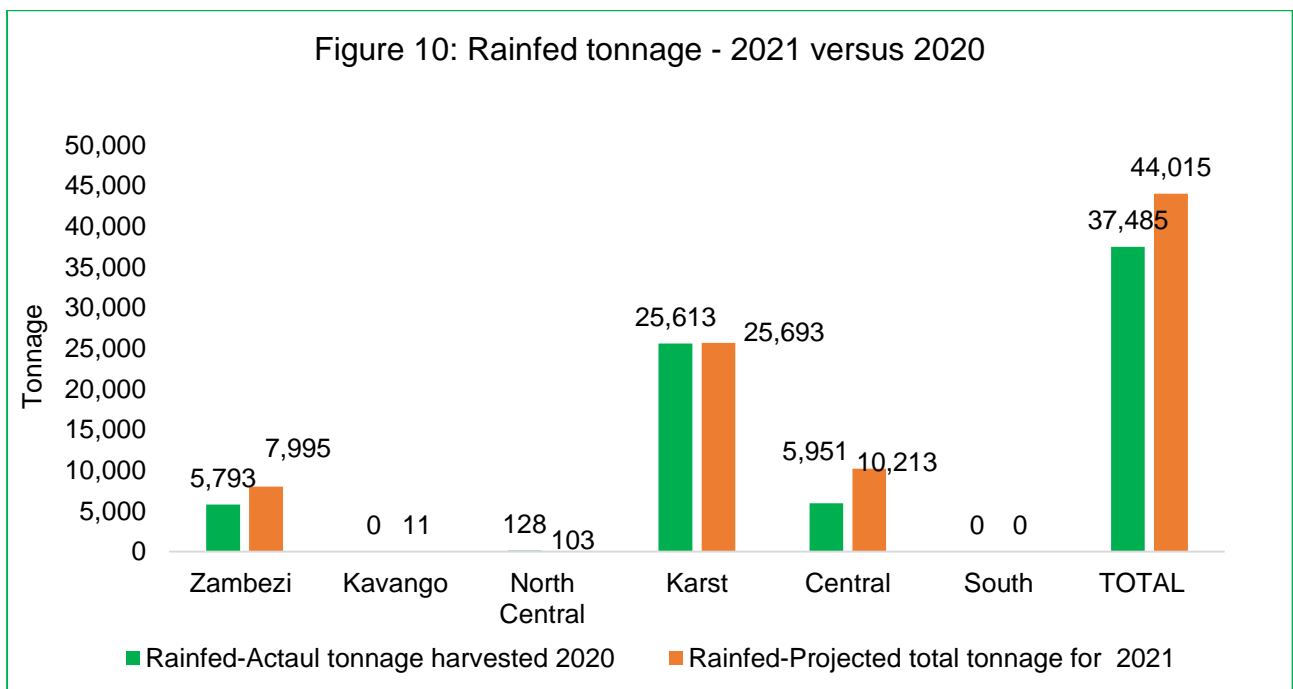


Figure 10: Rainfed tonnage – 2021 versus 2020



Figure 11 shows that the tonnage from irrigated production for 2021 season is expected to increase by 9,563 tons, when compared to 2020 season.

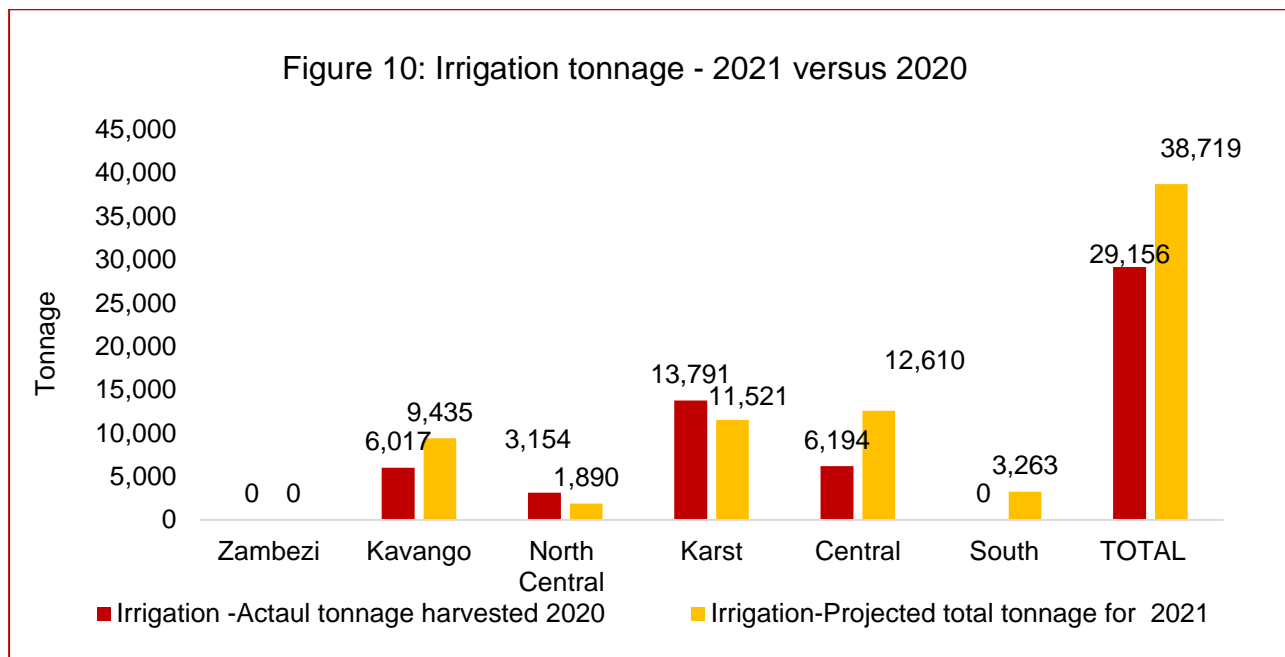


Figure 11: Irrigation tonnage – 2021 versus 2020

#### 4.2 Rainfed and irrigated hectares - 2021 versus 2020

Figure 12 below shows that, the production area planted under rainfed during 2021 season is 22,119 ha, and this shows an increase of 7,024 ha, when compared to the actual hectares planted in 2020 season under rainfed (15,095 ha).

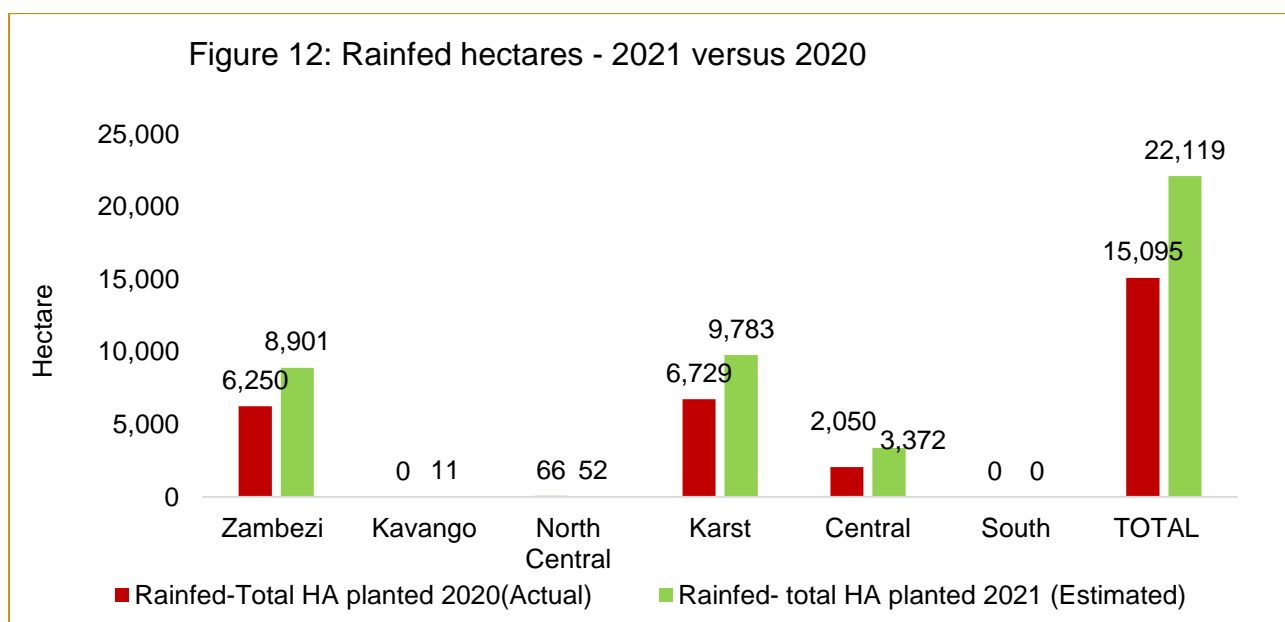


Figure 12: Rainfed hectares – 2021 versus 2020

Figure 13 shows that the area under irrigated production for 2021 season is expected to increase by 456 ha, when compared to 2020 season.

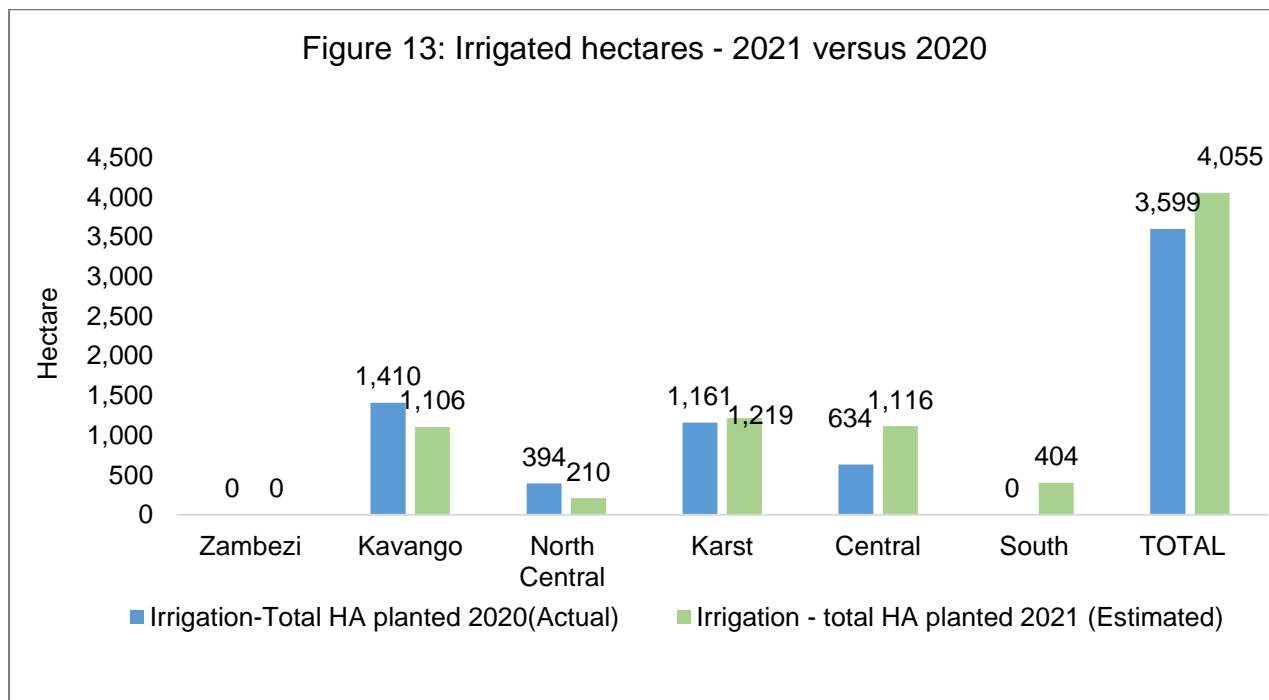


Figure 13: Irrigated hectares – 2021 versus 2020

## 5. CONCLUSION AND RECOMMENDATION

In summary, it is clear from this report that a bumper harvest of white maize is expected during this marketing season, and if realised as projected, it will be the first ever big harvest that the country will produce. This bumper harvest is attributed to good rainfall that was received in most parts of the crop producing areas, and also due to expansion in hectares planted both under irrigation and rainfed production.

Furthermore, from food security point of view, Namibia will be self-reliant with white maize supply for a period of six and half (6.5) months, as from mid May 2021 onwards. The supply of locally produced white maize grain is expected to surpass the monthly demand as from mid-May 2021 onwards, and in line with the existing rules and regulations, it is recommended that the border is closed for importation white maize as from 14 May 2021.

**THE END**