



**NAMIBIAN
AGRONOMIC BOARD**

AGRONOMY AND HORTICULTURE MARKET DEVELOPMENT DIVISION

AGRONOMY MARKET DEVELOPMENT SUBDIVISION

WHITE MAIZE PRODUCTION FORECAST REPORT

HARVESTING/MARKETING SEASON 2022/2023



Last Updated: 23/05/2022

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 irrigated production, and planted from October to January, for harvesting from April to October every year.

The marketing of locally produced white maize grains is managed through the White Maize Marketing Mechanisms/Agreement as signed by organised producers and millers. The marketing of white maize grains officially starts from the 1st of May every year, until such time all the available grains are marketed to millers/silos.

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

During the 2021 marketing season, a total of 90,895 tons was marketed from the 1st of May to the 31st of March 2022. Meanwhile, a total of **94 437 tons** is expected to be harvested and marketed during the 2022 production/marketing season from a total of **31, 944ha**. This represents an increase of 3,542 tons (4%), compared to the 2021 marketing season. The good harvest expected is attributed to good rainfall received in many crop growing areas of Namibia during the 2021/2022 planting season and also due to the increase in the number of hectares planted in the country.

This report presents hectares planted in different production areas during 2021/2022 and the expected harvest for the 2022 marketing season. It further presents the average yield per ha expected per production area, and a comparison of the tonnage and hectares for 2022 versus the 2021 harvest.

2. METHODOLOGY

The white maize production data was collected based on the subjective yield estimation method, which involves the 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 crop estimates data collection forms to the

producers via email, and also made them available on the 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 to submit the completed forms.

In the Zambezi production area, producers' registration and crop estimate data collection was conducted through registration of the expected harvest at the Agricultural Development Centres (ADCs), with assistance from the officials of the Ministry of Agriculture, Water, and Land Reform stationed at the ADCs. Radio announcements and audios via social media were made in different local languages, in order to invite producers who, wish to market white maize grains during the 2022/2023 marketing season to submit the expected harvest with the NAB. Completed forms from the ADCs were thereafter captured into excel. Data captured was cleaned 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 2022, this includes 191 white maize commercial (inclusive of the green scheme) producers and 2,993 surplus white maize producers in the Zambezi region.



3. PRODUCTION FORECAST 2022

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

3.1 Expected production quantities and the domestic demand analysis

Figure 1 below shows that the country is expecting a surplus harvest of locally produced white maize from May 2022 to June 2022. A total of 29,738 tons of WM is projected to be readily available for marketing. Whilst the average demand is estimated at 14,736 tons, thus showing a surplus of 15,002 tons. The next two months (June/July) also show surplus availability of grain, with June showing a peak harvest (33,665 tons) and the highest surplus (18,925 tons) availability of grain. Although, it

shows a deficit availability of grain from August – to December 2022, a sufficient supply of grain is expected to last until November 2022 due to the high/over-surplus projected from May to July 2022.

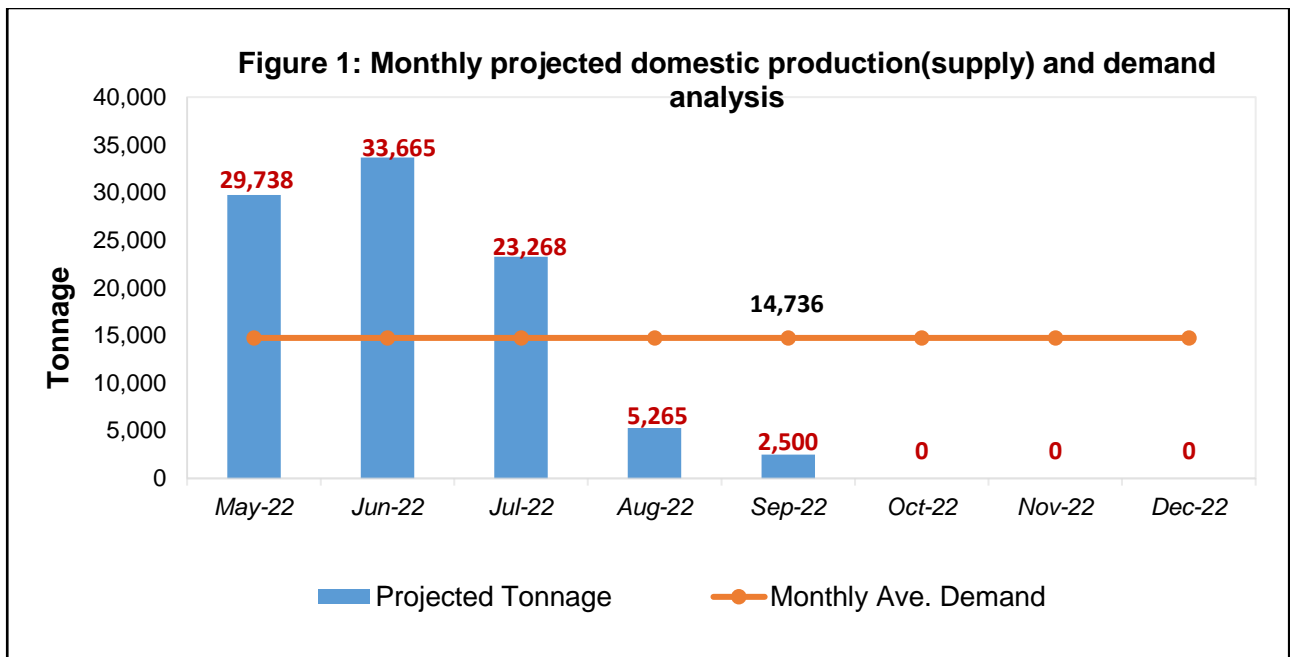


Figure 1: Monthly expected production and the average expected domestic demand

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.

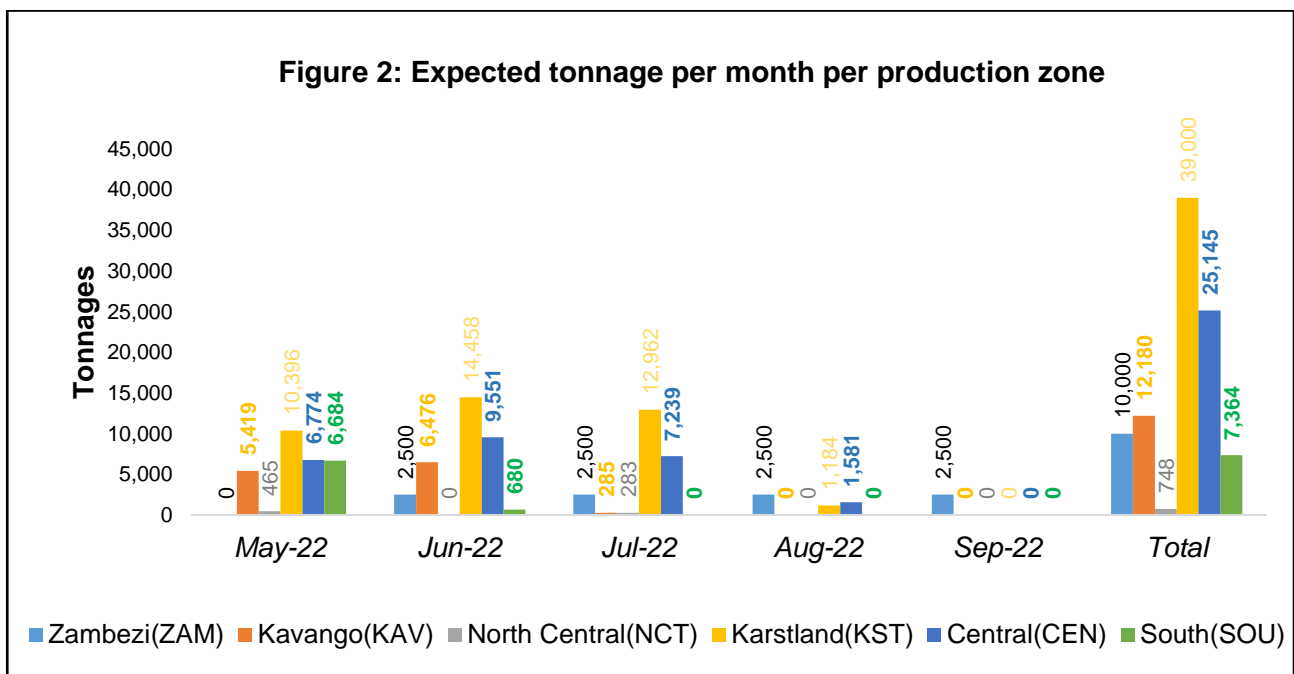


Figure 2: Expected tonnage per month per production area.

Figure 3 below shows that, the biggest tonnage is expected from the Karst area (39,000 tons), representing 41.3% of the total tonnage expected, and the lowest tonnage is expected from the North Central area (748 tons), representing 0.8% of the total tonnage expected in 2022.

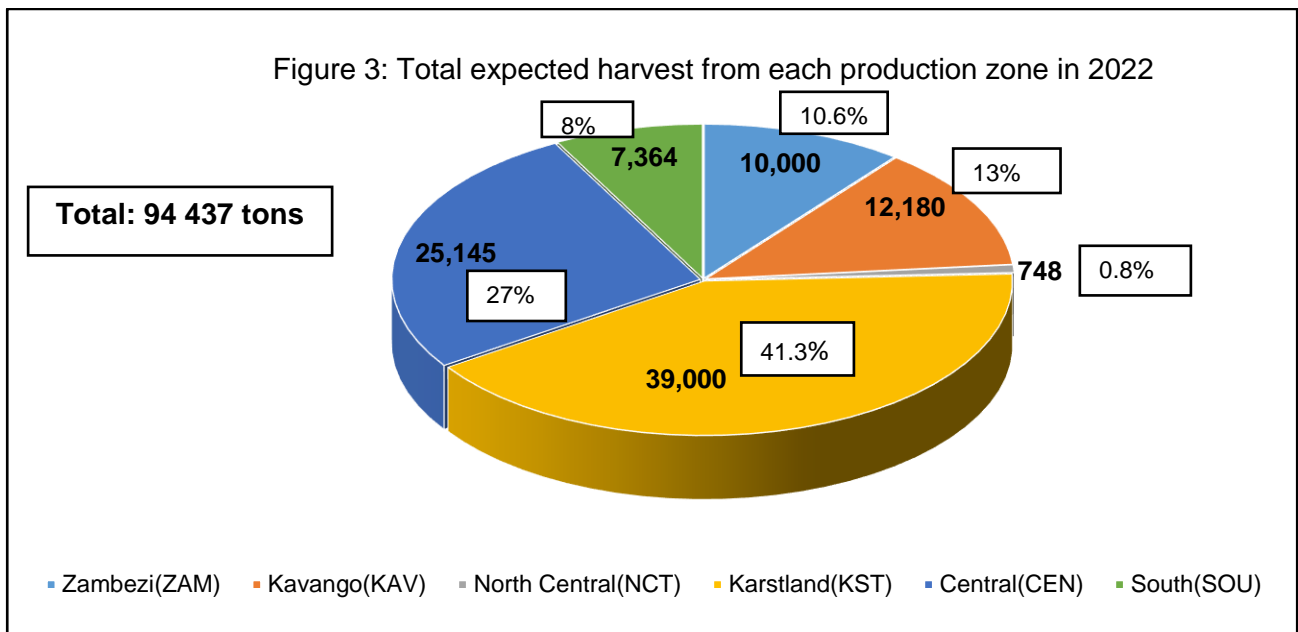


Figure 3: Total expected tonnage per production area 2022 production season.

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 (22,990 tons) followed by Zambezi (10,000 tons) and the lowest from North Central (283 tons). In terms of irrigated production, the biggest tonnage is expected from the Central area (17,363 tons), followed by the Karst area (16,010 tons) and the lowest is from North Central (465 tons).

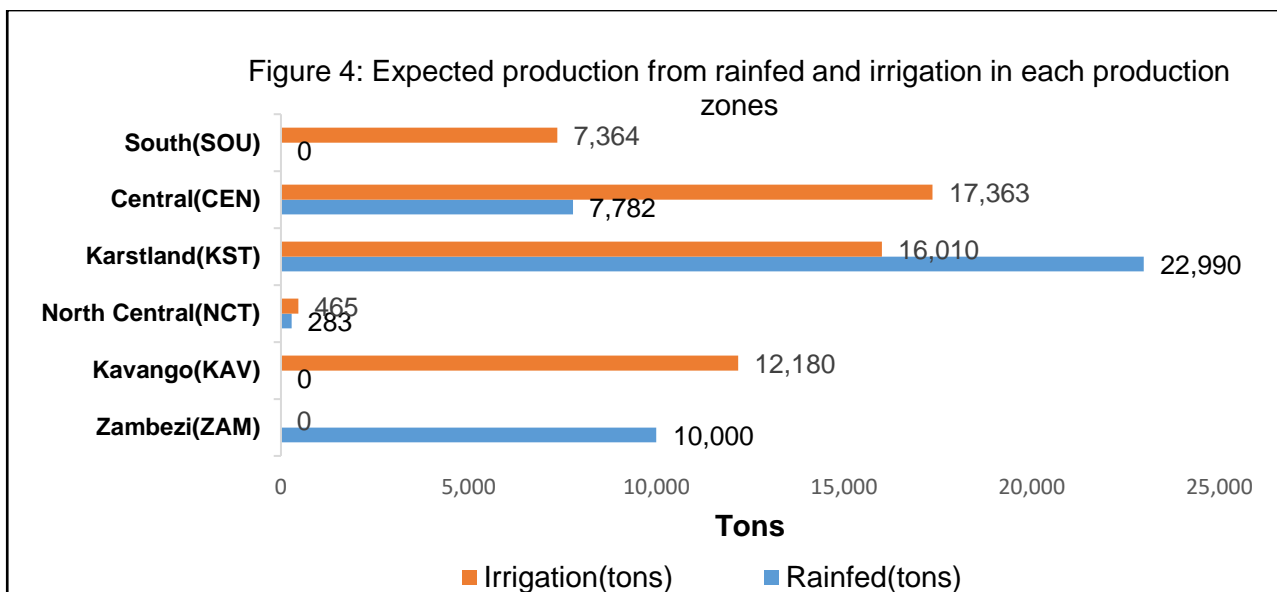


Figure 4: Expected tonnage from irrigated and rainfed production.

Figure 5 below shows that out of the total 94,437 tons of white maize expected to be harvested and marketed during the 2022 season, 41,056 tons (43.5%) is expected to be harvested from rainfed production, while 53,382 tons (56.5%) from irrigated production.

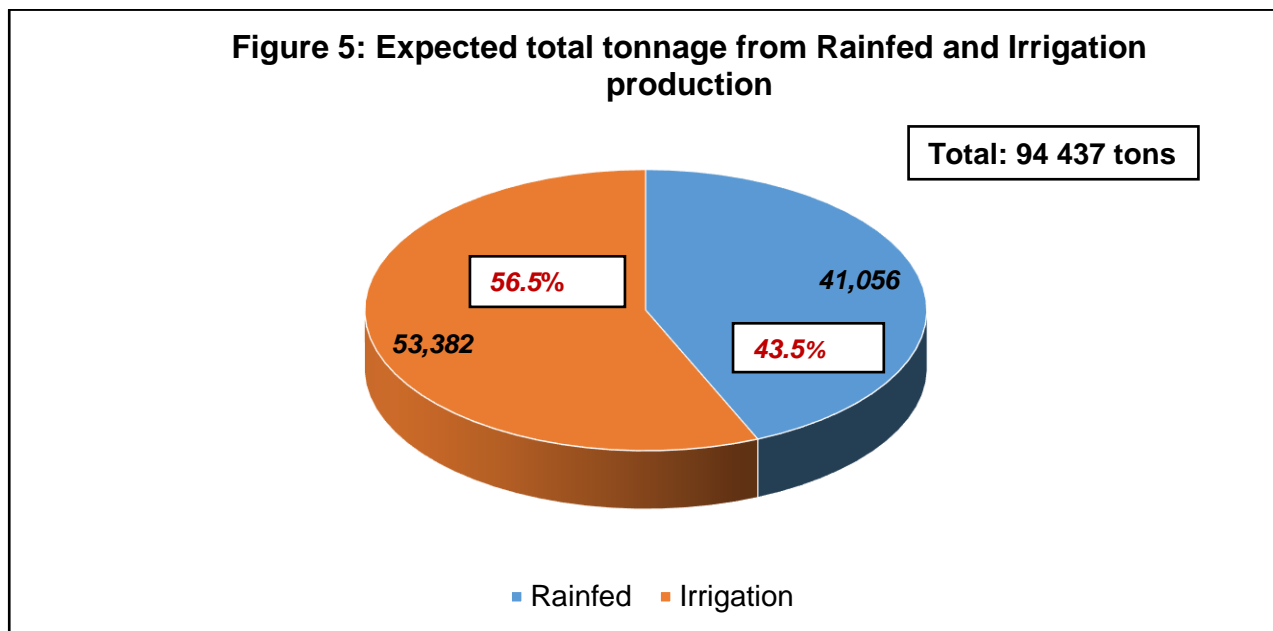


Figure 5: Total tonnage expected from irrigated and rainfed production.

3.3 Hectares planted during 2021/2022 planting season

Figure 6 below shows that the Karst production area planted the biggest hectares under irrigation (1,800 ha), followed by the Central production zone which planted 1,506 ha and the lowest is North Central (37ha). In terms of rainfed, the Zambezi production area is leading by 12,500 ha, followed by the Karst area (10,659 ha) and the lowest in the North Central area (111 ha). There is no rainfed production in Kavango and South production area.

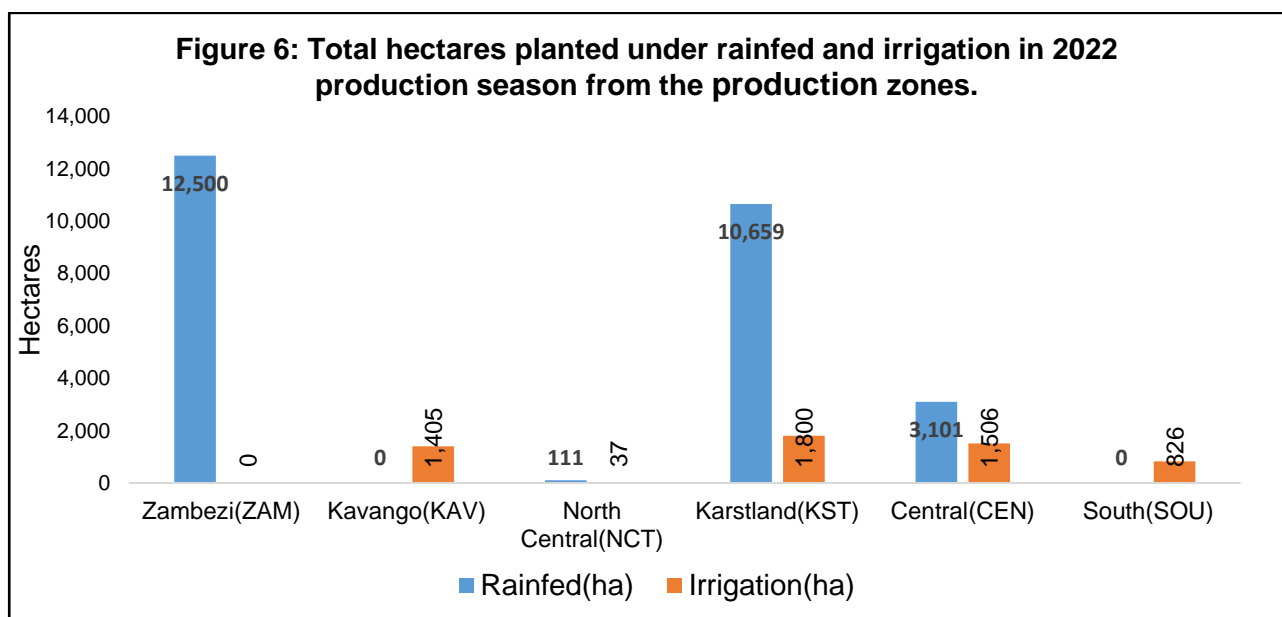


Figure 6: Total hectares expected to be harvested per area from irrigation and rainfed production.

Figure 7 below shows that a total of 31,944 ha was planted during the 2021/2022 planting season, of which 26,371 ha (84%) is rainfed, and 5,573 ha (16%) is under irrigation.

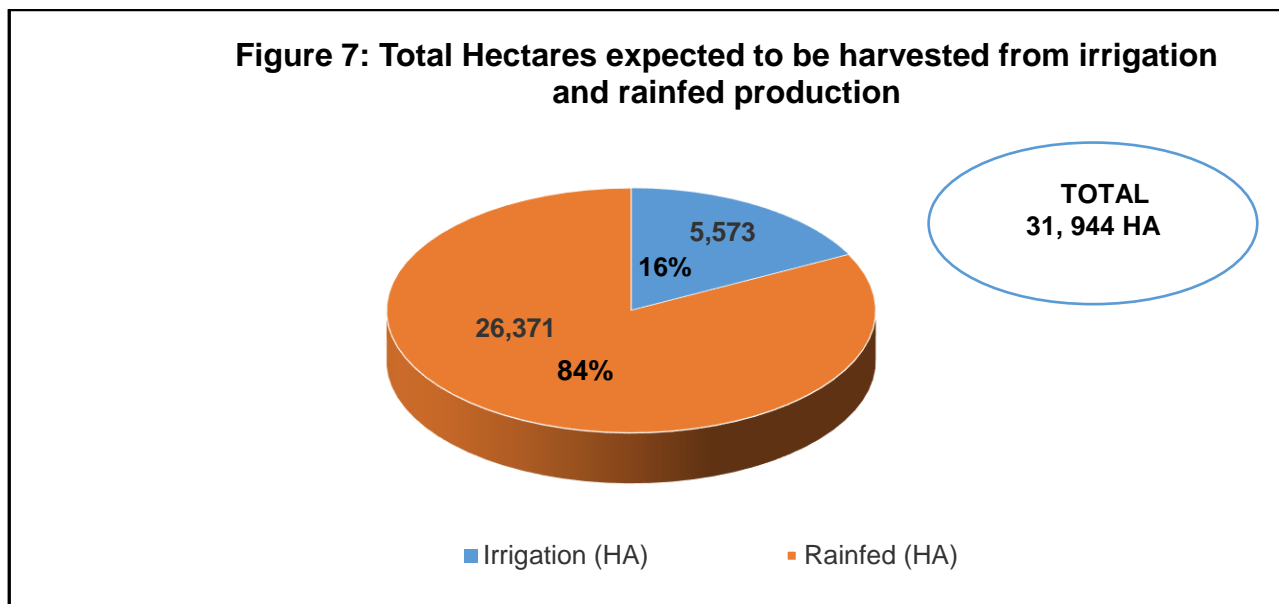


Figure 7: Total hectares planted under irrigation and rainfed production.

3.4 Forecasted average yield per hectare

The highest average yield per hectare is from irrigated production. Figure 8 shows that the North Central production zone expected the highest yield of 13 tons per hectare under irrigation production, followed by 12 tons per hectare from the Central production zone, the Kavango, Karstland, and Southern production zones are expecting to yield 9 tons/ha under irrigation production. In terms of rainfed production, the highest average yield of 3 tons/ha is expected from the North Central area and Central area, and the Zambezi area is the lowest expecting an average of 0.80 tons/ha.

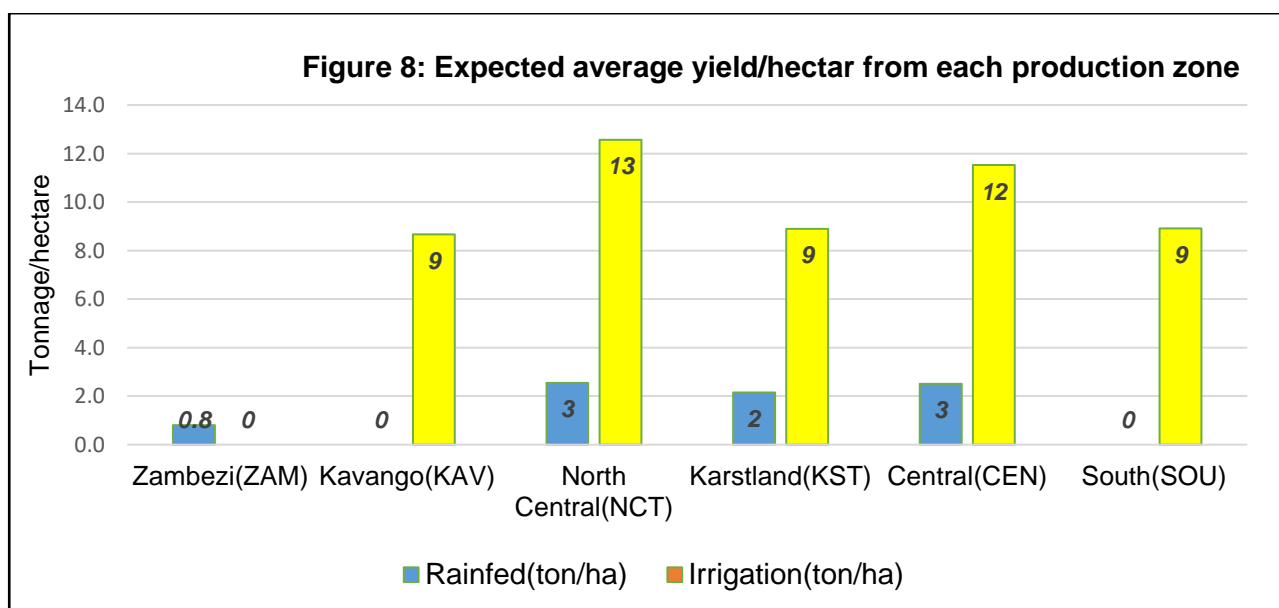


Figure 8: Expected average yield (tons/ha) for both irrigated and rainfed production.

Figure 9 below shows that the national expected average yield per hectare from irrigated production is 9.58 tons/ha, and 1.56 tons/ha from rainfed production.

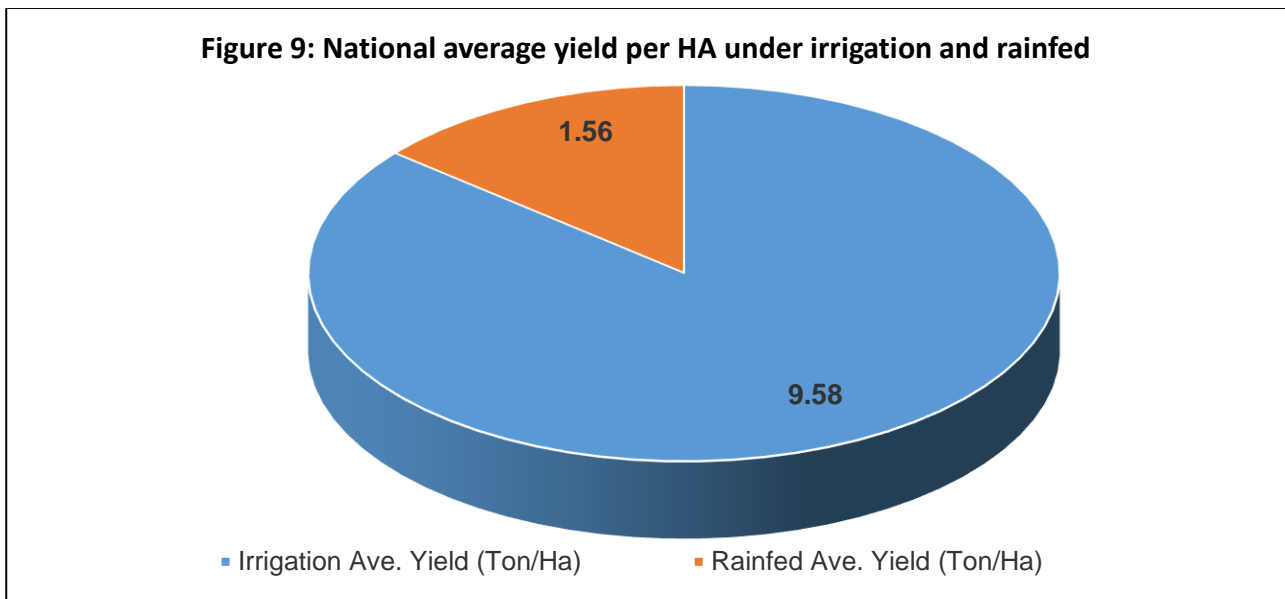


Figure 9: Total expected average yield per hectare (tons/ha).

4. COMPARISON OF TONNAGE AND HECTARES (2022 VERSUS 2021)

4.1 Rainfed and Irrigated tonnage - 2022 vs. 2021

Figure 10 below shows that the tonnage from rainfed production expected during the 2022 season is 41,056 tons, and this shows a decrease of 8,243 tons when compared to the actual tonnage harvested in the 2021 season under rainfed (49,299 tons).

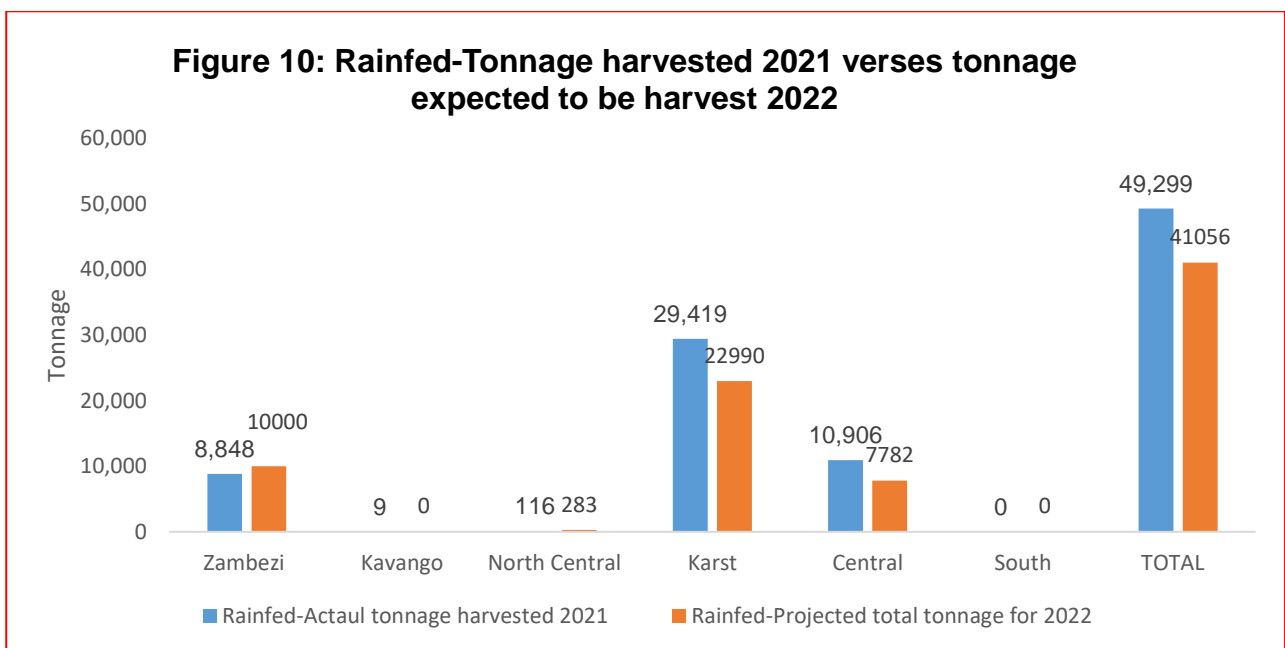


Figure 10: Rainfed tonnage – 2022 versus 2021

Figure 11 shows that the tonnage from irrigated production for the 2022 season is expected to increase by 11,784 tons when compared to the 2021 season.

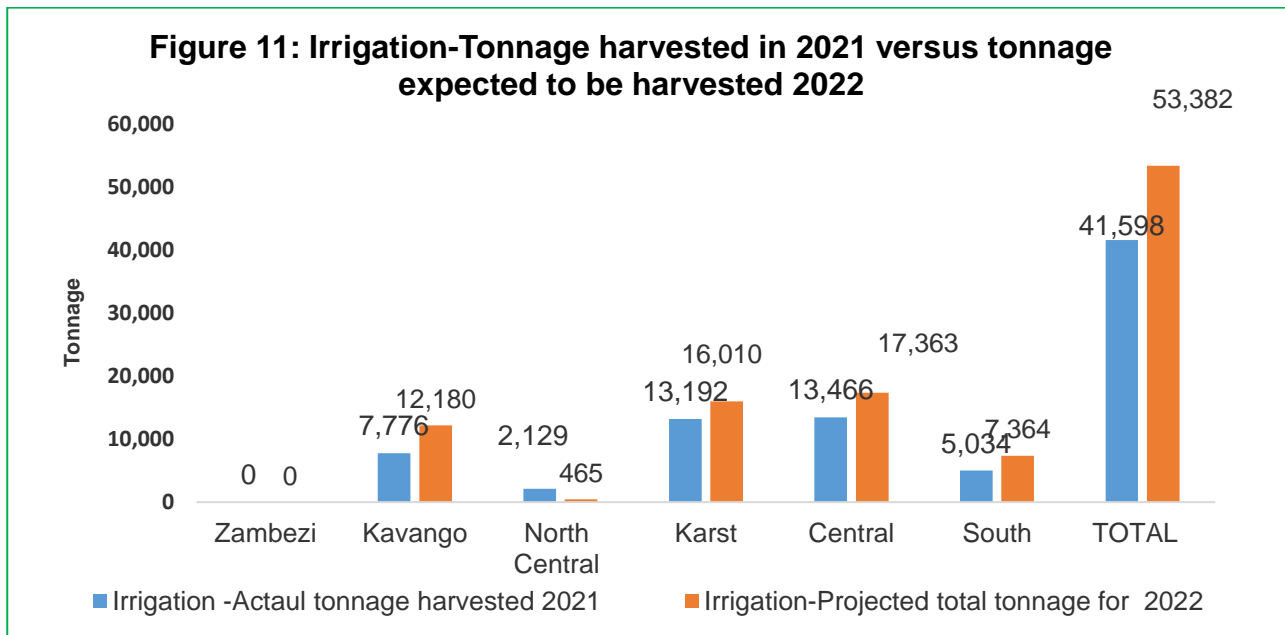


Figure 11: Irrigation tonnage – 2022 versus 2021.

4.2 Rainfed and irrigated hectares - 2022 versus 2021

Figure 12 below shows that the production area planted under rainfed during the 2022 season is 26,371 ha, and this shows an increase of 10,151 ha when compared to the actual hectares planted in the 2021 season under rainfed (16,220 ha).

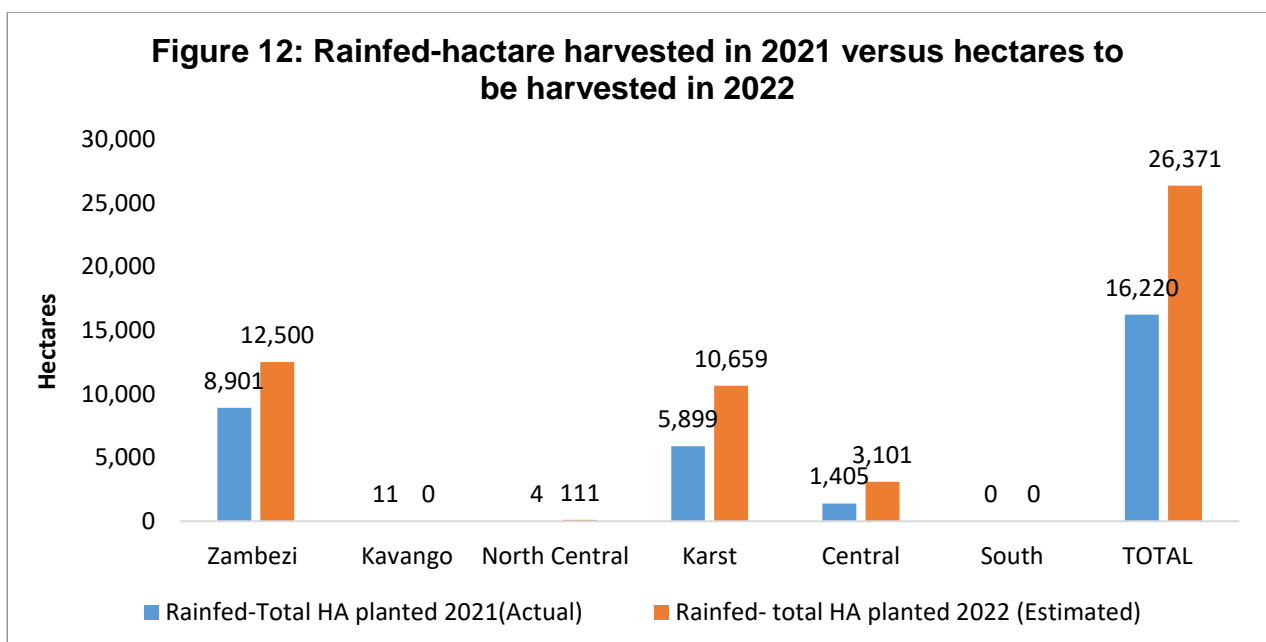


Figure 12: Rainfed hectares – 2022 versus 2021

Figure 13 shows that the area under irrigated production for the 2022 season is expected to increase by 2,558 ha when compared to the 2021 season.

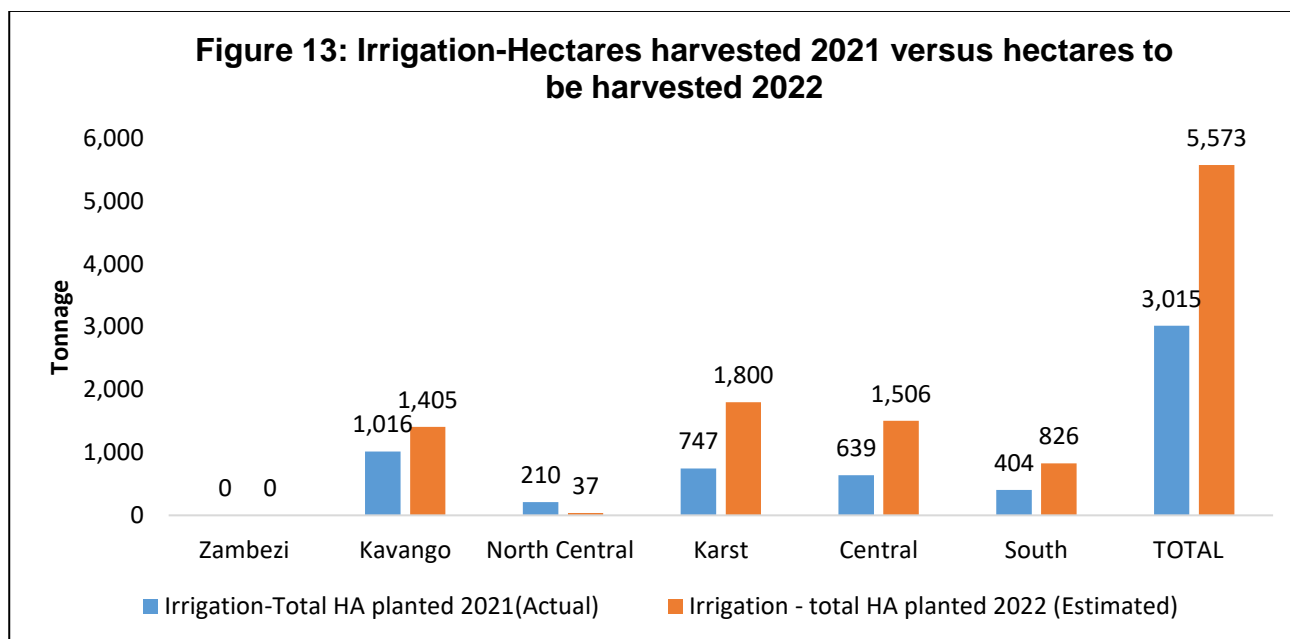


Figure 13: Irrigated hectares – 2022 versus 2021.

5. CONCLUSION AND RECOMMENDATION

In summary, it is clear from this report that a bumper harvest of white maize is expected during the 2022 marketing season, and if realized 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 compared to the previous years.

As such, from a food security point of view, Namibia will be self-reliant with white maize supply for 6-7 months, from May 2022 to at least October/November 2022. The supply of locally produced white maize grain is expected to surpass the monthly demand from May 2022, and in line with the existing rules and regulations, it is recommended that the border is closed for the importation of white maize from 09 May 2022.

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