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Constituted by Act 20 of 1992

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Namibia

A world class regulator of vibrant, diversified and sustainable crop industry

MARKET INTELLIGENCE REPORT

BUTTERNUT, SQUASH, PUMPKIN, AND GOURDS (*Cucurbita spp.*)



ISSUE 6 OF 2021

1. INTRODUCTION

Cucurbita spp. includes pumpkins, squashes, gourds, and butternuts, which are extensively cultivated in tropical and subtropical countries. They have economic importance and they are edible vegetables, are eaten as fruits or seeds, as seed oils, and are used for medicinal purposes. They include a large variety of vegetables, often used in various forms for cooking, pickling, salad, dessert fruits, candying, confectionary, etc. In addition, *Cucurbita* products have a high nutritional value, being also important sources of vitamins, and they are widely used in the culinary sector for biscuits, bread, desserts, soup, and beverage production (Salehi *et al.*, 2019). As one example of *Cucurbita spp.*, butternut (*Cucurbita moschata*) plays an important role in human nutrition, providing vitamins and other micronutrients. It is widely grown for its fruits, but its leaves are also important as a vegetable for some communities (Van der Ham, 2015). Butternut, also known as “butternut pumpkin”, is a fruit vegetable from *Cucurbitaceae* and genus *Cucurbita*. Butternut is a vigorous growing plant that takes 85-90 days to mature. Among all cucurbits, butternut is gaining preference because of its early maturity, appealing orange colour, and small size, making it attractive to producers, traders, and consumers (Dari & Yaro, 2016). Also, the hardy nature of butternut enables the crop to tolerate moderately harsh environmental conditions and it is resistant to many pests of cucurbits and has ready local and export markets. Butternuts are available year-round due to their ability to grow during hot and cold seasons (Van der Ham, 2015).

Vegetable crops are essential for nutritional needs, health, and human well-being (Keatinge *et al.*, 2011). An increase in the availability, affordability, and consumption of nutrient-dense vegetables is a substantial means of maintaining and improving people’s health (Keatinge *et al.*, 2011). It is, therefore, imperative to provide adequate investment in vegetable crop research in Namibia to contribute to food and nutritional security.

This Market Intelligence issue thus, analyses butternuts production trends and other *Cucurbita* species against consumption demand with the possibility of Namibia’s participation in a global market chain for both domestic and export markets. The analysis results reveal to Namibian farmers, policymakers, and managers the opportunities associated with the production and marketing of butternuts as well as the need for public, private, and farmer investments to increase production for both domestic and export markets.

NOTE: The statistics of butternuts presented under the GLOBAL PERSPECTIVE and AFRICA AND SADC REGION PERSPECTIVE sections include squash, pumpkin, and gourds as per the international data sources.

2. GLOBAL PERSPECTIVE

This section covers the butternut global overview, focusing on the performances in most recent years on average annual production, market (export and import), and consumption.

PRODUCTION: Butternuts are mainly popular in Australia, New Zealand, Southern African countries, and the United States of America. Butternut market segmentation can be categorised as frozen, fresh, or puree. On a global scale, the UK is experiencing a surplus of butternuts from South Africa and Brazil (Van der Ham, 2015).

Annual global butternuts production stands at 25,099,447.8 tonnes (five years average of 2015-2019) (FAOSTAT, 2021). High global butternut production was recorded in the year 2017, producing 27,678,883 tonnes. The lowest global butternut production was recorded in 2018 at 22,739,602 tonnes (FAOSTAT, 2021). Figure 1 below shows the global butternut production from 2015 to 2019.

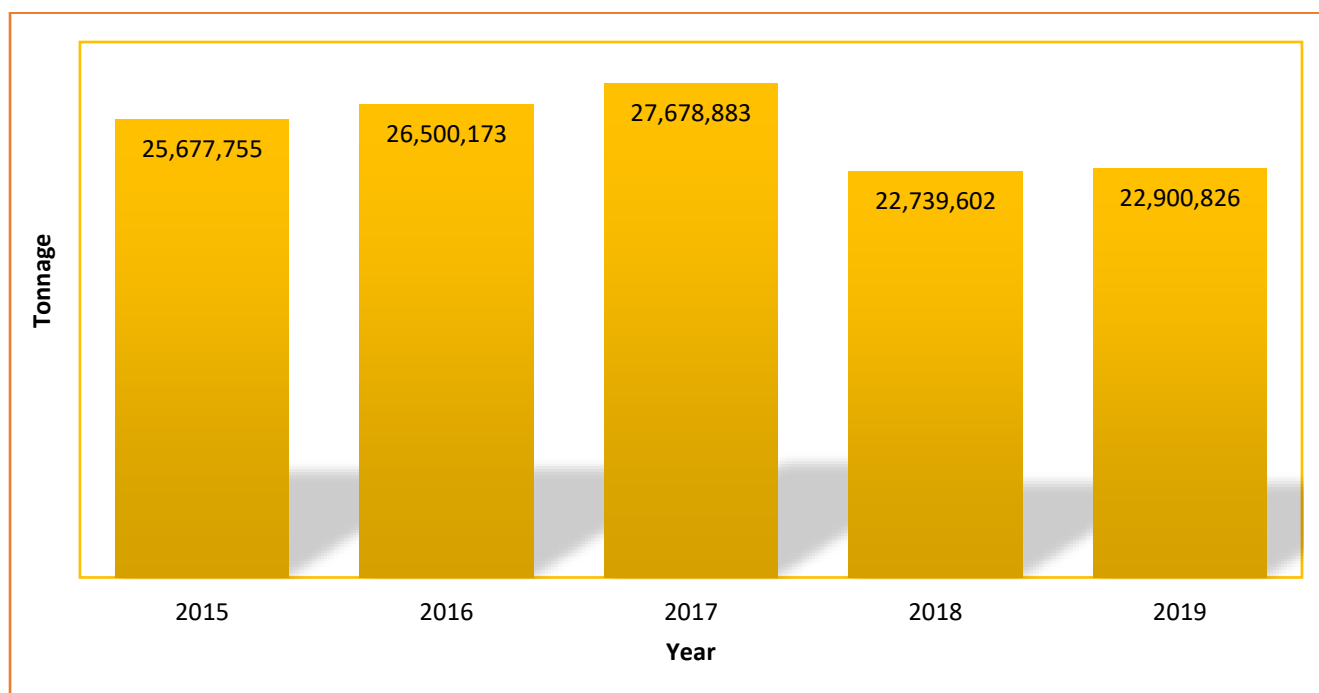


Figure 1: Global butternut production volumes (FAOSTAT, 2021)

Figure 1 further indicates a decrease in butternut production from 25,677,755 tonnes produced in 2015 to 22,900,826 tonnes produced in 2019.

Table 1 below presents the Top 10 butternuts-producing countries (5 years average for 2016-2020). China leads in the world butternuts production with an annual average tonnage production of over 8,356,745, followed by India with 5,655,994 tonnes and Ukraine with 1,346,427 tonnes (ITC.trademap.org, 2021).

Table 1: World top 10 butternut producing countries (five-year average, 2016-2020)

Country	Production tonnage: Average for 2016-2020
1. China	8,356,745
2. India	5,655,994
3. Ukraine	1,346,427
4. Russian Federation	1,208,224
5. Mexico	777,484
6. Spain	744,475
7. United States of America	686,039
8. Turkey	619,018
9. Italy	603,476
10. Indonesia	509,268

(Source: [ITC.trademap.org](https://www.itc-trademap.org), 2021)

IMPORTS: On average, global butternut imports tonnage displays an upward trend (Fig.2), while on the same gesture, a similar increasing trend was also observed with butternuts import value (Fig.3) from 2015 to 2019 (FAOSTAT, 2021).

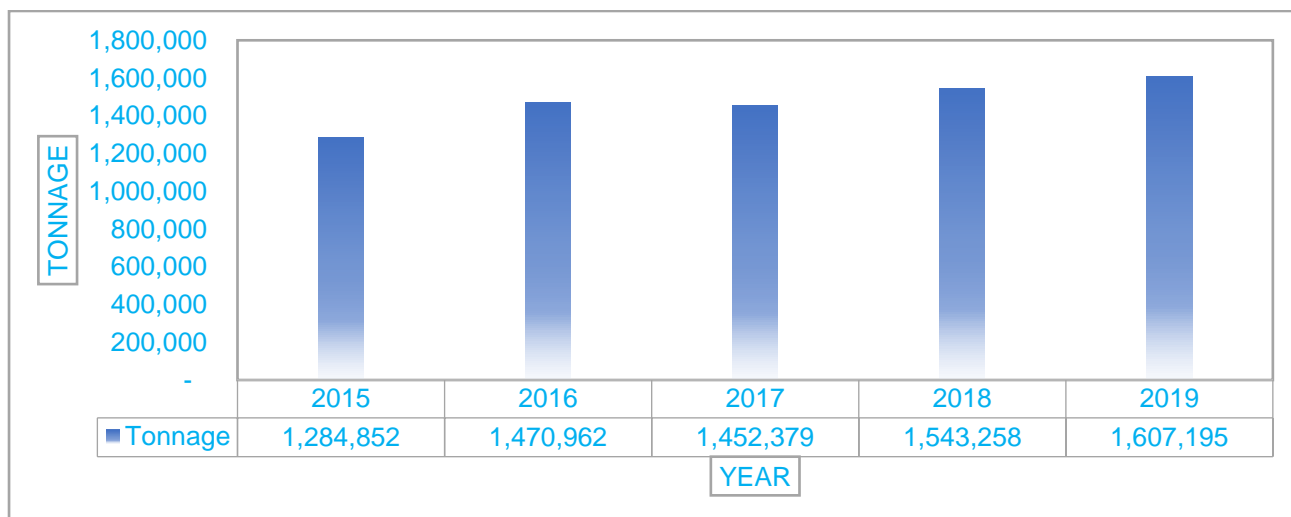


Figure 2: Global butternuts import volume (FAOSTAT, 2021)

Figure 2 displays a constant increase in global butternuts import tonnage, showing an increasing consumption of butternuts and prospective market opportunities for producers (FAOSTAT, 2021).

In 2019, over 1,607,190 tonnes of butternuts were imported globally at a cost of 1,402,929 US dollars. Annual averages of 1,471,729.2 tonnages of butternuts are imported globally (FAOSTAT, 2021).

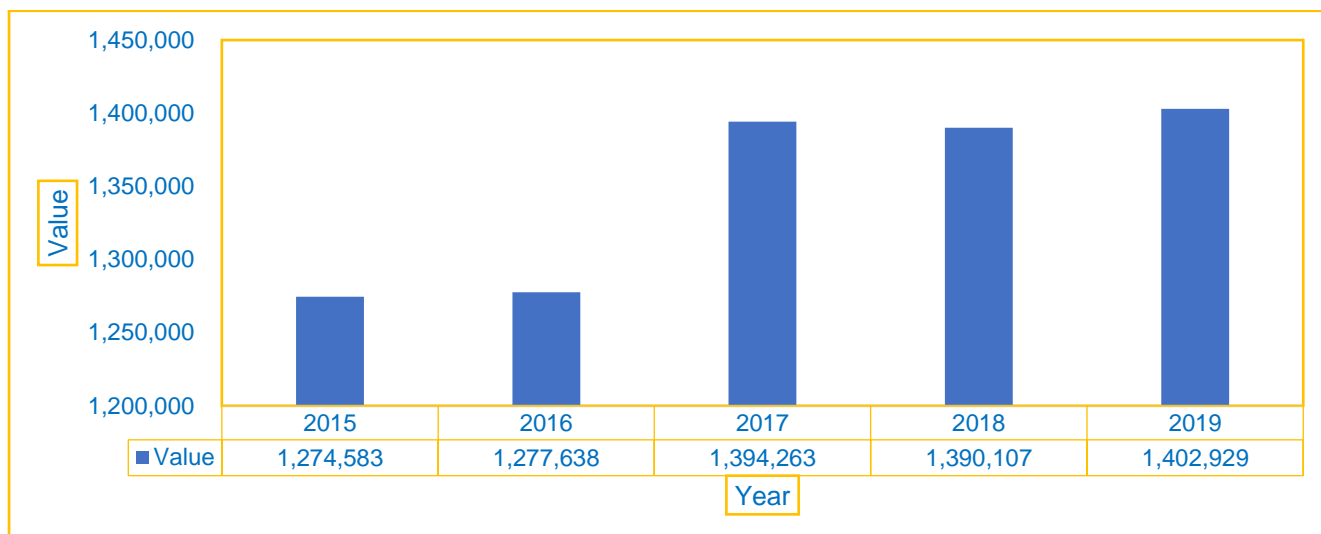


Figure 3: Global butternuts import value (FAOSTAT, 2021)

Butternuts: Import value in Namibian dollars (N\$), as per figure 3 (Conversion date: 19.02.2022):

2015 – 19,156,982
2016 – 19,202,899
2017 – 20,893,308
2018 – 20,893,308
2019 – 21,086,022

The displayed constant increase in global butternuts import value shows an increasing consumption of butternuts and prospect market opportunities for producers (FAOSTAT, 2021). The table below shows the top butternut importing countries by value and import market share.

Table 2: Butternut top six importing countries by value and import share (%) (ITC.trademap.org, 2021)

	IMPORT VALUE (US\$)	IMPORT SHARE %
1. United States of America	3,574,617	24.18
2. Germany	1,808,919.6	12.26
3. United Kingdom	1,277,537.8	8.68
4. France	995,921.6	6.76
5. Canada	827,592.2	5.6
6. Netherlands	642,191.6	4.34

Table 2 displays the average value and share of imported butternuts by leading countries over a six-year period from 2015 to 2020 (ITC.trademap.org, 2021). The United States of America recorded the highest import value of over US\$3,574,617 (equivalent to N\$53,726,493.5), occupying 24% of the global import market share followed by Germany occupying 12% global import market share (ITC.trademap.org, 2021).

EXPORT: Globally, 1,511,434 tonnes of butternuts are exported annually, with a high export tonnage being recorded in 2019 with 1,402,929 tonnes at a value of 1,341,909 US dollars (FAOSTAT, 2021) over a five-year period, from 2015 to 2019. Figure 4 below shows the globally exported butternuts tonnage from 2015 to 2019 (FAOSTAT, 2021).

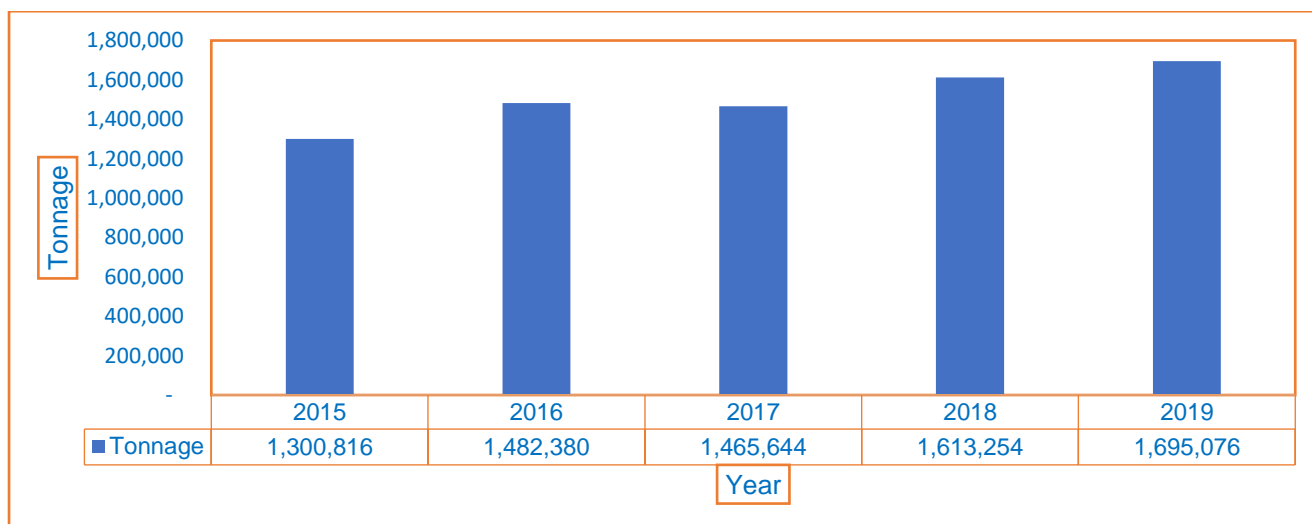


Figure 4: Global butternuts export volume (FAOSTAT, 2021)

Figures 4 and 5 show a constant increase in both butternuts export value and tonnage displayed from 2015 to 2019 (FAOSTAT, 2021).

Furthermore, figure 5 below shows the global exported butternuts value from 2015 to 2019.

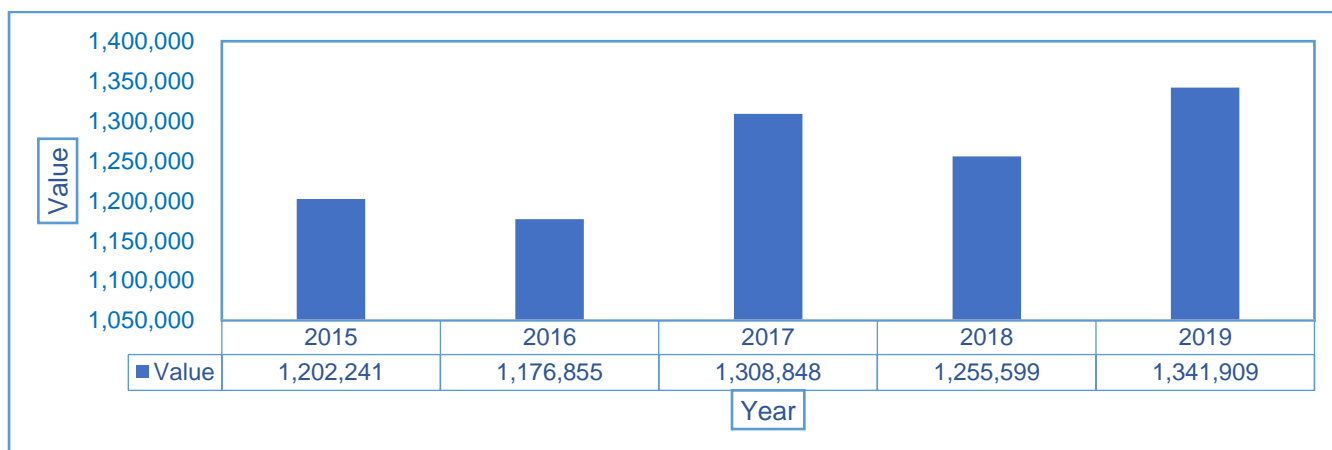


Figure 5: Global butternuts export value (FAOSTAT, 2021)

Butternuts: Export value in Namibian dollars (N\$), as per figure 5 (Conversion date: 19.02.2022):

2015 – 18,069,682

2016 – 17,688,131

2017 – 19,671,985

2018 – 18,871,652

2019 – 20,168,892

Table 3: Countries' share in the global butternut export market share by value (ITC.trademap.org, 2021).

	Export Value (N\$)	Export share %
1. Mexico	2,475,364.00	17.14
2. Spain	2,203,356.80	15.24
3. Netherlands	2,008,595.80	13.94
4. United States of America	922,667.00	6.42
5. China	770,946.60	5.34
6. Canada	663,035.80	4.58

Table 3 displays the value and share of exported butternuts by the leading countries over a five-year period, from 2015 to 2020 (ITC.trademap.org, 2021). Mexico recorded the highest export value of over US\$2,475,364.00 (equivalent to N\$37,204,720.9), occupying 17% of the global export market share, followed by Spain occupying 15% of the global export market share (ITC.trademap.org, 2021).

CONSUMPTION: The increasing recognition of butternuts as nutritional food is attracting health-diet-conscious consumers, thus, expanding butternuts' global market (Fortune Business Insights, 2021). Figure 12 shows butternut usage popularity in comparison to onions and carrots in 2020. Onion was the most consumed vegetable among the three vegetables in 2020, while carrots and butternuts had minimal significant gaps in consumption volumes.

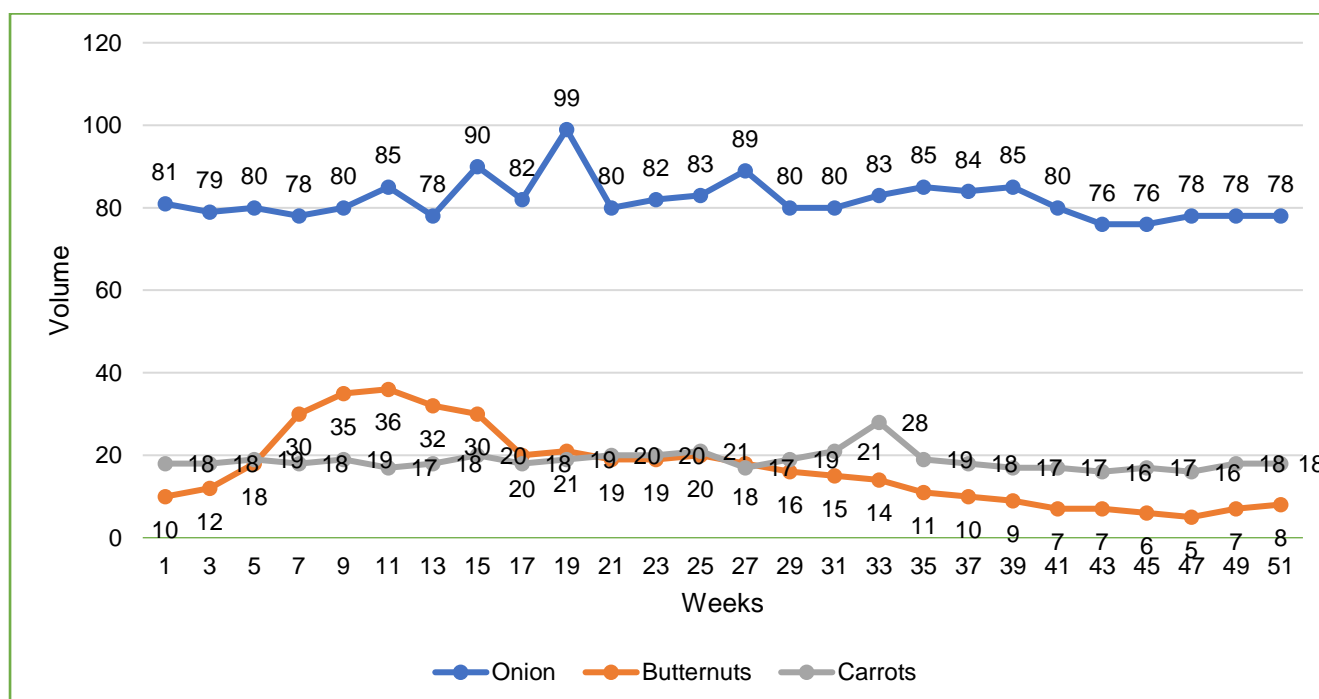


Figure 6: Worldwide popularity comparison of onions/butternuts/carrots (Intracen, 2021)

3. AFRICAN AND SOUTHERN AFRICA PERSPECTIVE

This section provides information on butternuts production, market (import and export), consumption, and an overview of Southern Africa and other African regions.

PRODUCTION: Butternuts production in Africa stands at an annual average of 2,639,189 tonnes, of which in Southern Africa, this stands at 299,825.8 tonnes per annum (an average of five years 2015-2019) (FAOSTAT, 2021). Table 4 below shows the annual production average for Africa's top five leading butternuts-producing countries from 2015 to 2019. Malawi leads the list with an annual average of 480,551 tonnes followed by Egypt with 458,100 tonnes per annum and the least is Namibia with 1,038 tonnes per annum (FAOSTAT, 2021; NAB, 2021).

Table 4: Top 4 leading butternut producers in Africa from 2015-2019

COUNTRY	AVERAGE TONNAGE: 2016-2020
1. Malawi	480,551
2. Egypt	458,100
3. Algeria	381,176
4. South Africa	358,255
5. Namibia	1,038

Source: FAOSTAT, 2021; NAB, 2021

As shown in Figure 7 below, in Southern Africa, high butternuts production of 446,900 tonnages was recorded in 2015, while a low production record of 255,032 tonnes was observed in 2016. Figure 7 further shows a decrease in total butternuts production from 2015 to 2019, which could be attributed to the declining harvested area and adverse weather conditions experienced during the period.

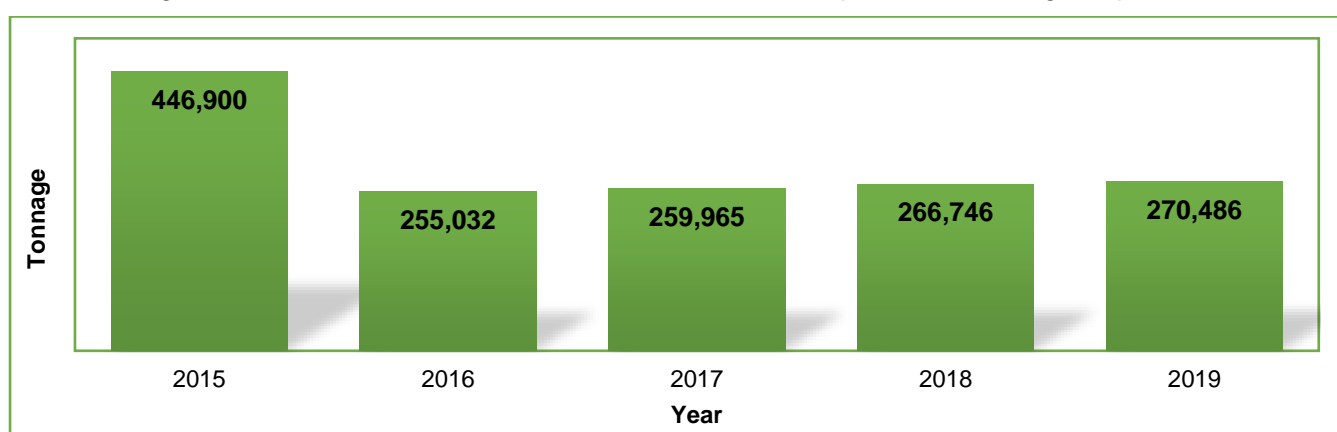


Figure 7: Southern Africa's butternut production volume (FAOSTAT, 2021)

IMPORT: Overall, a declining trend was observed in the importation of butternuts in Africa from 2015-2020, with an average import record of 10,825 tonnes per annum (FAOSTAT, 2021). However, over the recent years, an increasing trend in the imported tonnage of butternuts is observed in Southern Africa of over 5,334.4 tonnes of butternuts per annum. The increasing butternuts importation in Southern Africa

might be linked to decreased production of butternuts in the region as shown in Figure 7 above (FAOSTAT, 2021). The highest import record of butternuts in Africa was recorded in the year 2015 at 15,028 tonnes, while the lowest import tonnage was recorded in 2019 at 7,924 tonnes (Figure 8).

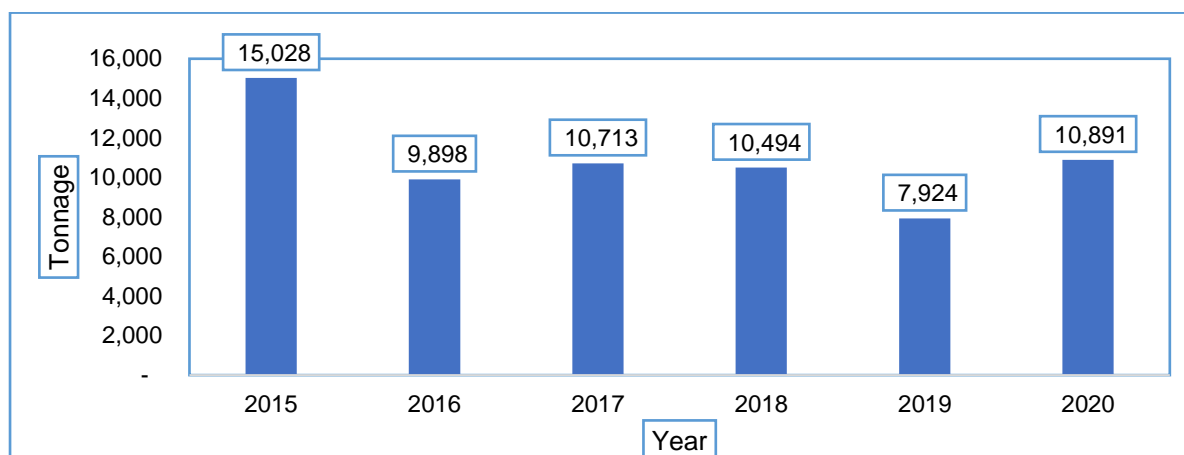


Figure 8: Africa's butternut import volume since 2015-2020 (FAOSTAT, 2021)

Table 5 below shows the top leading butternuts importing countries in Africa by value (three-year average from 2018 to 2020). The table depicts that Mauritania has the highest import value in Africa of N\$13,066,074 per annum. Additionally, Mauritania recorded the highest growth import value of 80% with an import market share of 0.059% followed by Botswana with an annual import value of N\$11,282,509 and an import value growth of 12% and an import market share of 0.052% (Oecworld, 2021). Namibia and Eswatini, on the contrary, recorded a decreasing trend in import values (Table 5).

Table 5: Top six leading butternut importers by value in Africa from 2018-2020

Country	Average (2018-2020)		%	
	Value US\$	Value N\$	Share %	Import Value Growth %
1. Mauritania	869,333	13,066,074	0.059%	80.70% ↑
2. Botswana	750,666	11,282,509	0.052%	12.10% ↑
3. South Africa	749,333	11,262,475	0.052%	29% ↑
4. Namibia	319,333	4,799,574	0.02%	1.50% ↓
5. Eswatini	211,333	3,176,335	0.015%	0.97% ↓
6. Lesotho	192,500	2,887,500	0.013%	3.30% ↑

Source: Oecworld, 2021

(Conversion date: 19.02.2022)

Figure 9 shows the Southern African butternuts import tonnage trend over a five-year period from 2015 to 2019, whereby, in 2015 the lowest import of 4 847 tonnes was recorded while in 2016 the highest import of 5 628 tonnes was recorded (FAOSTAT, 2021).

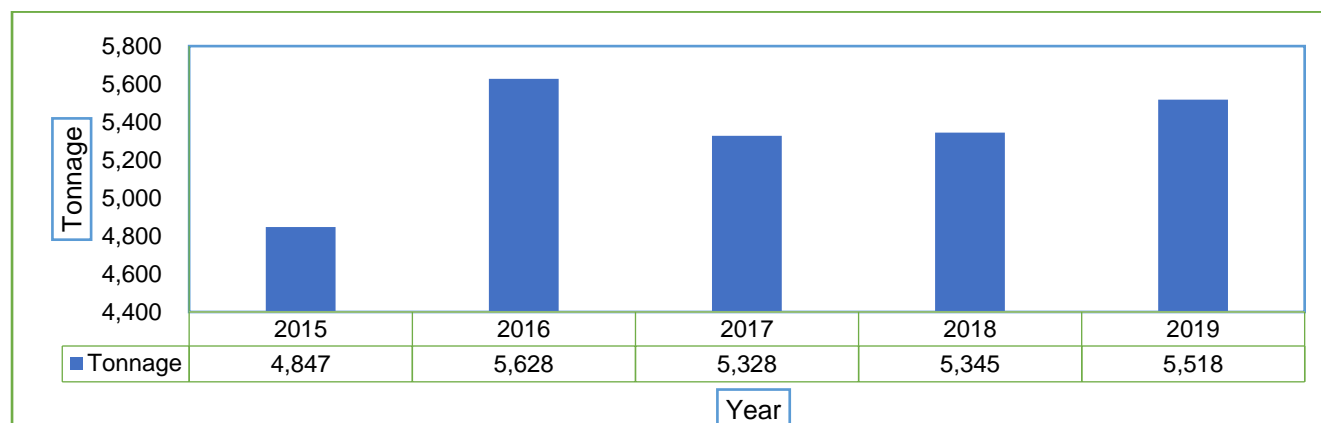


Figure 9: Southern Africa's butternut import volume (FAOSTAT, 2021)

Figure 10 shows butternuts' import value in Southern Africa from 2016 to 2019. On average, Southern Africa imports butternuts at a value of US\$2,281,000.75 (N\$34,397,491.31) per annum (FAOSTAT, 2021).

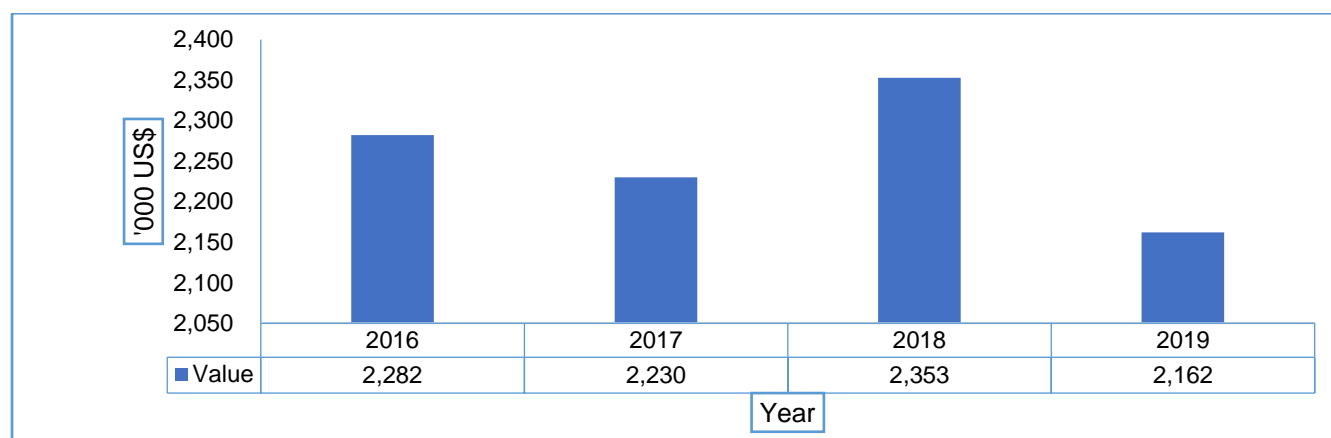


Figure 10: Southern Africa's butternut import value (FAOSTAT, 2021)

Butternuts: Import value in Namibian dollars (N\$) as per figure 9 (Conversion date: 19.02.2022):

2016 – 34,298,460

2017 – 33,516,900

2018 – 35,365,590

2019 – 32,494,860

Figure 10 depicts that a high import value worth US\$2,353,000 (N\$35,483,240) of butternuts was recorded in the year 2018. In the year 2019, butternuts' import value decreased, recording the lowest import record value of US\$2,162,000 (N\$32,602,960) (FAOSTAT, 2021).

Table 6 shows the leading butternuts importers in Southern Africa by volume and value from 2018-2020 (FAOSTAT, 2021). On average, over the past three years (2018-2020), South Africa recorded the highest butternuts imports with volumes of 2,203 tonnes valued at N\$11,828,610, followed by Botswana with 1,688 tonnes valued at N\$10,836,630, then followed by Namibia, while Angola recorded the lowest with 13 tonnes valued at N\$240,480 (Table 6).

Table 6: Top five leading butternut importers in Southern Africa by tonnage and value over a three-year period (2018-2020)

Country	Tonnage	Value US\$	Value N\$
1. South Africa	2,203	787,000	11,828,610
2. Botswana	1,688	721,000	10,836,630
3. Namibia	593	277,792	4,175,220
4. Zambia	229	151,000	2,269,530
5. Mozambique	42	79,000	1,187,370
6. Angola	13	16,000	240,480

Source: FAOSTAT, 2021; NAB, 2021

(Conversion date: 19.02.2022)

EXPORT: The trend in butternuts export tonnage in Africa from 2015 to 2020 increased from 51,361 to 70,158 tonnes, averaging 67,826 tonnes per annum (FAOSTAT, 2021; Figure 11).

Figure 11 shows Africa's butternuts export tonnage from 2015 to 2020, with the highest export recorded in 2018 at 101,240 tonnes and the lowest export was in 2015 at 51,361 tonnes.

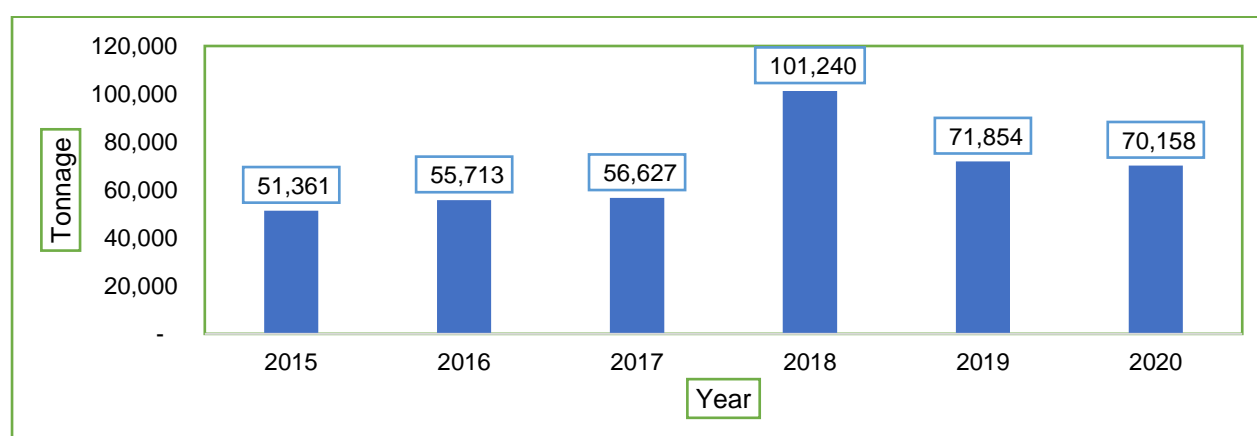


Figure 11: Africa export tonnage from 2015 to 2020 (FAOSTAT, 2021)

Table 7 shows the top leading butternuts exporting countries in Africa by value (average from 2018 to 2020). Morocco recorded the highest export value of N\$620,739,000 per annum in Africa with an export market share of 2.91% followed by South Africa with N\$244,493,010, with an export market share of 1.13%. The least is Uganda at N\$8,511,989, with an export market share of 0.039% (Table 7).

Table 7: Top seven leading butternut exporters in Africa by value (three-year average, 2018-2020)

Country	Average (2018-2020)		%
	Value US\$	Value N\$	Share %
1. Morocco	41,300,000	620,739,000	2.91%
2. South Africa	16,267,000	244,493,010	1.13%
3. Egypt	2,680,000	40,280,400	0.19%
4. Senegal	1,427,000	21,447,810	0.99%
5. Tunisia	1,129,000	16,968,870	0.085%
6. Namibia	601,000	9,033,030	0.04%
7. Uganda	566,333	8,511,989	0.039%

Source: Oecworld, 2021

(Conversion date: 19.02.2022)

Table 8 shows the leading butternuts exporters in Southern Africa volume and value average from 2018-2020 (FAOSTAT, 2021). As displayed in Table 8 (over a three-year average from 2018-2020), South Africa recorded the highest butternuts export value of N\$164,227,799 in Southern Africa followed by Namibia, Zimbabwe and Botswana with N\$6,914,169, N\$75,150 and N\$37,575 respectively.

Table 8: Top four leading butternut exporters in Southern Africa by tonnage and value over a three-year period (2018-2020)

Country	Tonnage	Value US\$	Value N\$
1. South Africa	21,657	10,926,666	164,227,799
2. Namibia	1,425	460,025	6,914,169
3. Zimbabwe	13	5,000	75,150
4. Botswana	3	2,500	37,575

Source: FAOSTAT, 2021; NAB, 2021

(Conversion date: 19.02.2022)

An increasing trend in exported butternuts tonnage and value since 2015 is observed as shown in Figures 12 and 13. The average export volume of 16,771.8 tonnes and an average export value of 8,227,000.8 was recorded during the five years from 2015 to 2019 (FAOSTAT, 2021).

Figure 12 depicts that in 2018 a high butternut export tonnage was recorded in Southern Africa at 21,653 tonnes at a value of US\$10,608,000 (N\$159,968,640), while the lowest export tonnage was recorded in 2015 with only 8,353 tonnes at a value of US\$3,584,000 (N\$54,046,720).

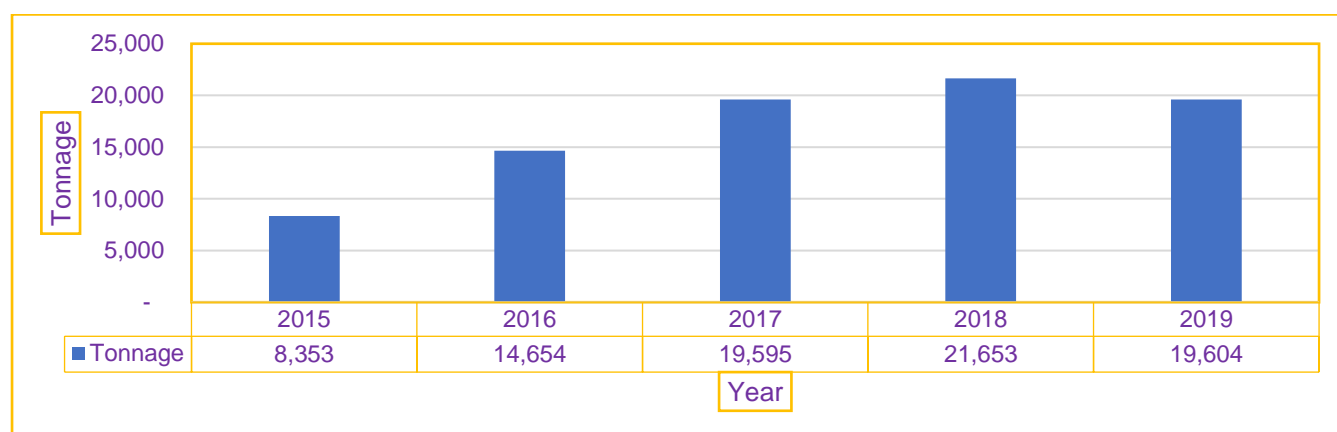


Figure 12: Southern Africa's butternut export volumes (FAOSTAT, 2021)

Figure 13 shows Southern Africa's butternut export value from 2015 to 2019, depicting an increasing trend from N\$53,867,520 in 2015 to N\$145,219,860 in 2019 (FAOSTAT, 2021).

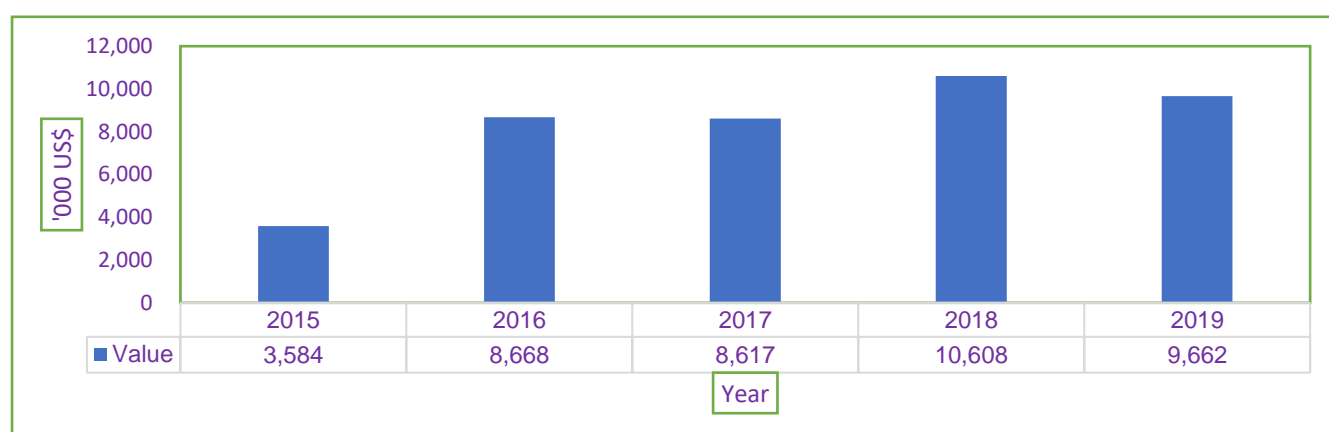


Figure 13: Southern Africa's butternut export value (FAOSTAT, 2021)

Butternuts: Export value in Namibian dollars (N\$), as per Figure 11 (Conversion date: 19.02.2022):

2015 – 53,867.520
 2016 – 130,280.040
 2017 – 129,513.510
 2018 – 159,438.240
 2019 – 145,219.860

CONSUMPTION: According to FAOSTAT (2021), on average, Africa consumes 2,582,189 tonnes of butternuts per annum while from 2017 to 2019, Southern Africa consumed an average of 267,059 tonnes of butternuts per annum. In addition, an increasing consumption trend was displayed during that period (2017 – 2019). However, butternut prices per tonne differ from country to country as shown in Table 9. For instance, Algeria recorded the highest average producer's unit price of N\$8,725/tonne while Egypt recorded the lowest price of N\$1,751 per tonne (FAOSTAT, 2021; Table 9).

Table 7: Average butternut prices per tonne for different countries (2016-2021)

Country	Price per tonne US\$	Price per tonne N\$
South Africa	362.75	5,700
Egypt	116.5	1,751
Algeria	580.5	8,725
Namibia	359.28	5,400

Source: FAOSTAT, 2021

(Conversion date: 19.02.2022)

4. DOMESTIC PERSPECTIVE

This section covers domestic production, market (import and export), and consumption of the *Cucurbita* species including butternut/baby butternut, pumpkin/blue pumpkin, squash/germ squash/baby squash, and gourd in Namibia.

PRODUCTION: From the 2011/2012 to 2020/2021 cropping seasons, there was a steady increase in total local production tonnage of *Cucurbita spp.*, with butternut having the highest production records among others, while gourd recorded an insignificant tonnage (below zero throughout).

However, in the cropping season 2014/2015, pumpkins recorded a higher tonnage of 584. In the 2017/2018 production season, butternut production increased to 1,364 tonnes and was sold locally at a total value of N\$8,098,663 (NAB, 2021).

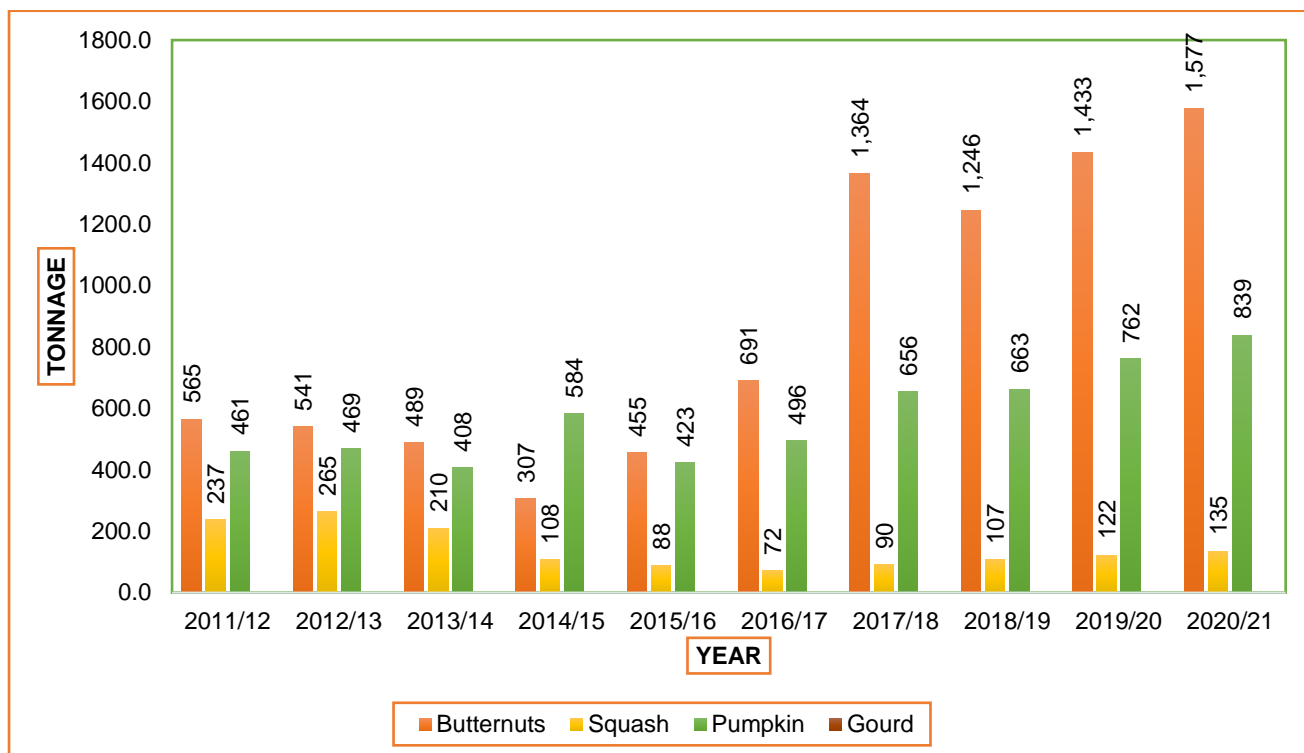


Figure 14: Namibia's butternut, squash, pumpkin, and gourd production trend from 2011/12 – 2020/21 (NAB, 2021)

Figure 14 shows that the annual average butternut and pumpkin production over ten years, from 2011/2012 to 2020/2021, has had an increasing trend, increasing from 564 and 461 tonnes in 2011/2012 to 1,577 and 839 tonnes in 2020/2021 respectively (NAB, 2021). The squash production trend displays a slight decrease.

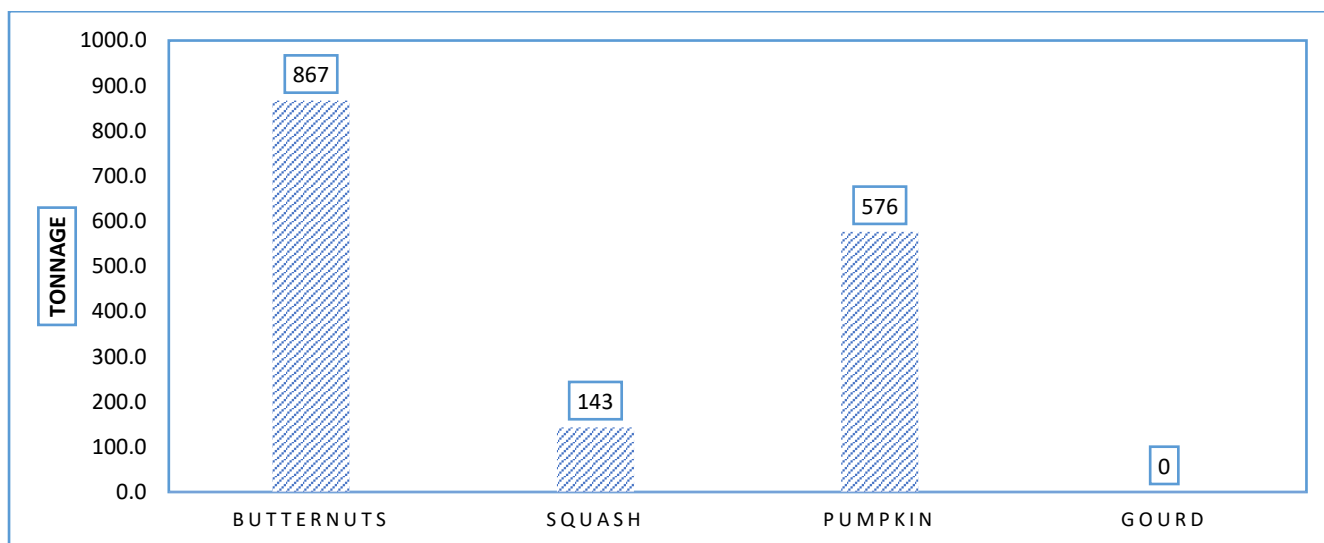


Figure 15: Butternut, squash, pumpkin, and gourd average annual production tonnage over ten years (2011/12 – 2020/21) (NAB, 2021)

Figure 15 above displays Namibia's *Cucurbita spp.* average production tonnage per annum over ten years. Butternut recorded the highest annual tonnage (866 tonnes), followed by pumpkin (576 tonnes), and squash (143 tonnes), while gourd again recorded insignificant figures (below zero tonnage per annum from 2011/2012 to 2020/2021).

Figure 16 presents Namibia's *Cucurbita spp.* including pumpkin, squash, gourd, and butternut production values (N\$) per annum from 2011/2012 to 2018/2019.

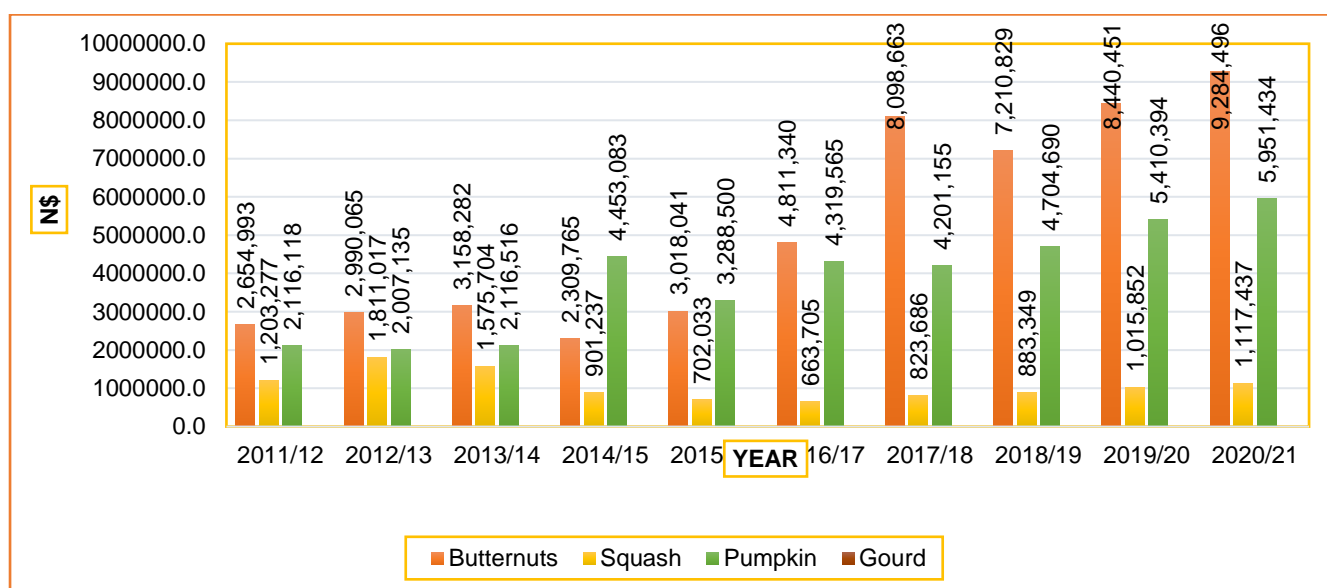


Figure 16: Namibia's butternut, squash, pumpkin, and gourd production values from 2011/2012 – 2020/2021 (Source: NAB, 2021)

According to the NAB (2021) records as shown in figure 14, the butternut and pumpkin local value increased from N\$2,654,993 and N\$2,116,118 in 2011/2012 to N\$8,292,453 and N\$4,704,690 in 20219/2020 respectively.

Figure 17 shows the local butternut, squash, and pumpkin average production value over ten years (2011/2012 to 2020/2021). Butternut recorded the highest value of N\$5,197,692.5, then followed by pumpkin at N\$3,856,859 and squash at N\$1,069,729.7, while gourd recorded insignificant figures (below zero value per annum over the ten years).

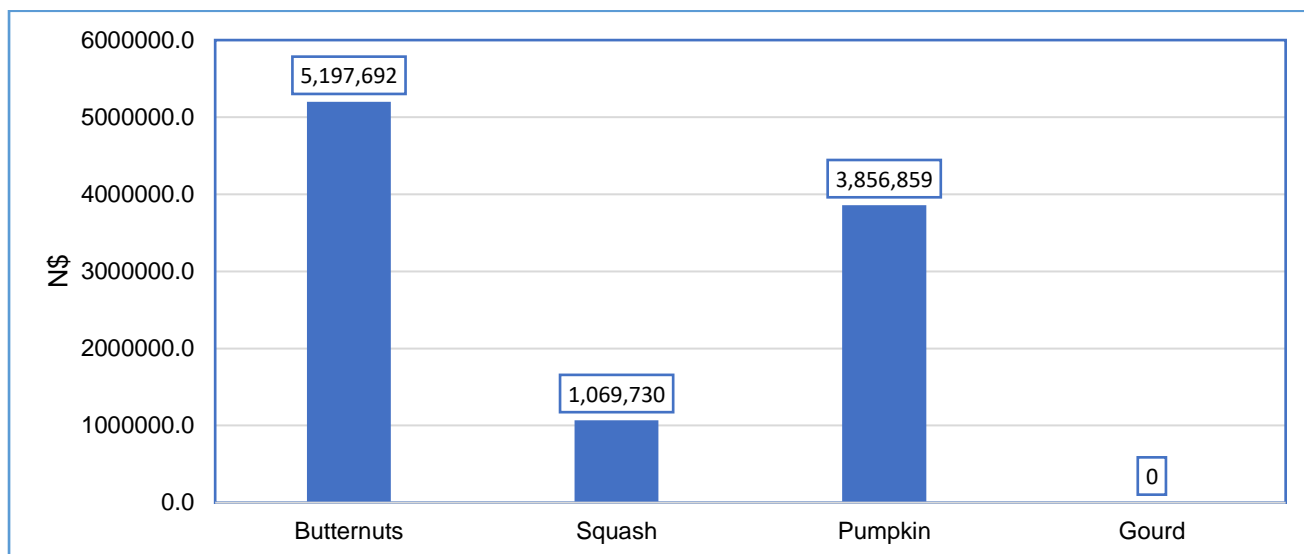


Figure 17: Namibia's butternut, squash, pumpkin, and gourd average production value from 2011/2012 – 2020/2021 (Source: NAB, 2020)

Table 6 shows the local butternut, squash, and pumpkin average price over three years (2017/2018 to 2019/2020).

Table 8: Local butternut, squash, and pumpkin retail average price (N\$) per kg from 2017/2018-2019/2020

Period	Butternut	Squash	Pumpkin
2017/2018	5.94	10.4	6.74
2018/2019	8.80	8.4	6.95
2019/2020	7.97	8.54	7.91
Average price N\$/Kg	7.57	9.10	7.20

Over the past three years from 2017/2018 to 2019/2020, the average price per kilogram of butternut, squash, and pumpkin was N\$7.57, N\$9.10, and N\$7.20 respectively (NAB, 2021).

IMPORTS: Butternut, squash, and pumpkin demands in Namibia are higher than local production and the deficit is always filled up with imports. Figure 18 shows that a high butternut import tonnage record was observed in the year 2011/2012 with 324 tonnes, which dropped drastically in 2012/2013 to 89 tonnes, which is the lowest butternut, pumpkin, and squash import tonnage per annum over the nine years (2011/2012-2019/2020). However, a significant increase in the importation of butternut, pumpkin, and squash into Namibia over the four years (2013/2014-2016/2017) was observed, with a sharp decrease in 2017/2018, before it started increasing again towards the 2019/2020 period (NAB, 2021).

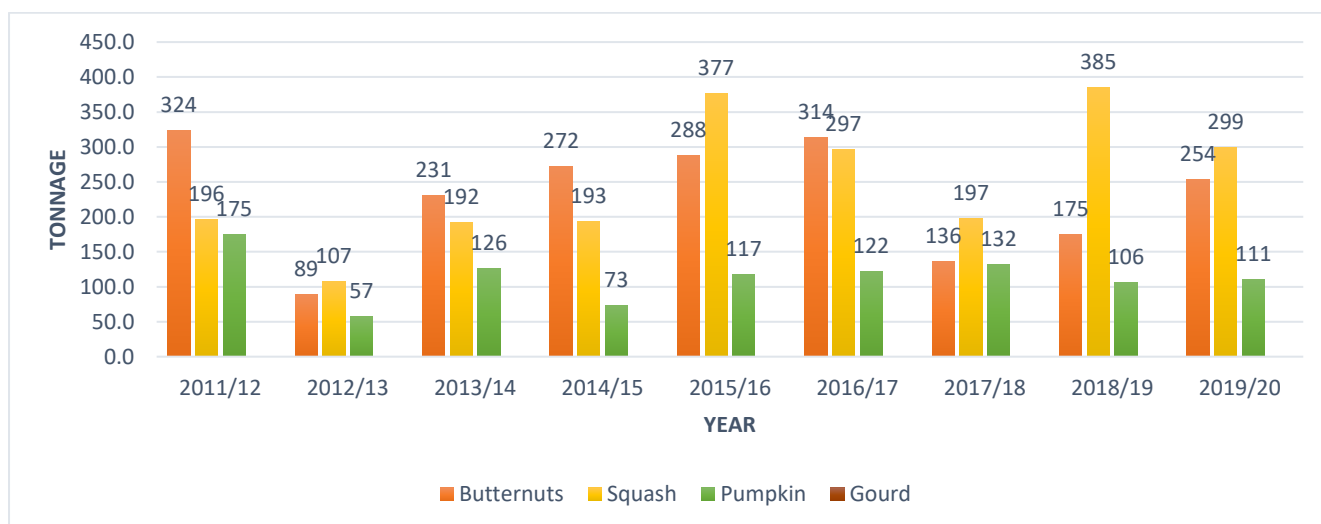


Figure 18: Butternut, squash, and pumpkin imports tonnage from 2011/2012 – 2019/2020 (NAB, 2021)

According to NAB (2021), as shown in Figure 18, Namibia's butternut imports fluctuate. However, the average record of 231.4 tonnes for butternuts, 249.2 tonnes for pumpkins, and 113.2 tonnes for squash per annum, over nine years from 2011/2012 to 2019/2020 was recorded, whereas gourds recorded a zero value (Figure 19).

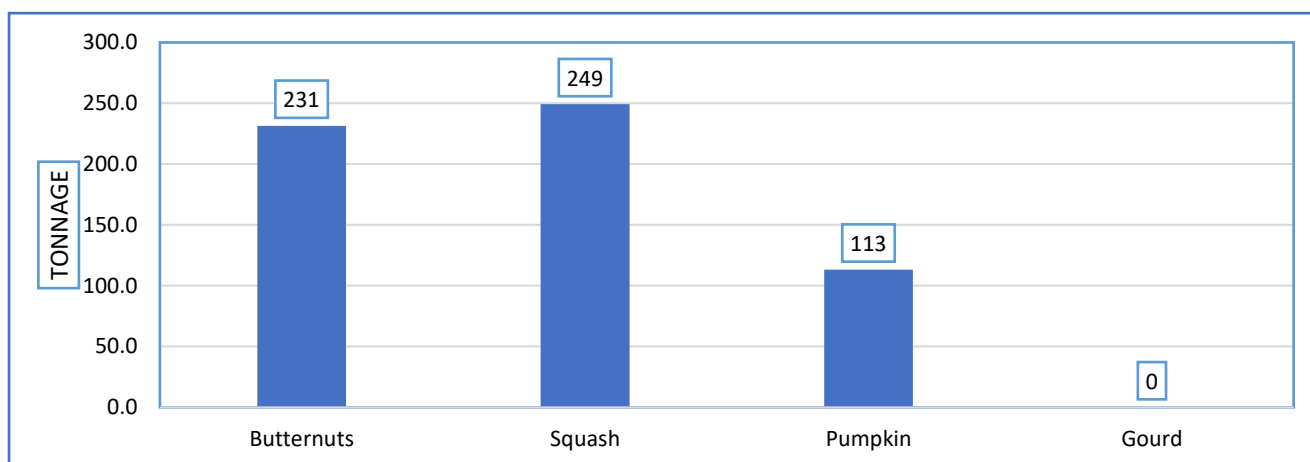


Figure 19: Butternut, squash, and pumpkin average imports tonnage from 2011/2012 – 2019/2020 (NAB, 2021)

Similarly, according to NAB (2021), a fluctuating trend was observed in butternut, squash, and pumpkin import values, whereby in 2016/17 butternut and squash recorded the highest import value of N\$2,087,237 and N\$4,169,615.3 respectively. This was, in fact, the highest annual butternut and squash imports value over the nine years (Figure 20 below). The value of butternut and squash then decreased to N\$686,901.5 and N\$1,548,925.1 in 2017/18, respectively (NAB, 2021). The lowest squash import value of N\$1,127,993 was observed in 2012/13. Overall, Namibia recorded a decreasing trend in butternut, squash, and pumpkin imports value from 2016/17 to 2017/18.

Figure 20 shows a decreasing trend of butternut imports value of N\$209,460 being recorded in 2015/16, while pumpkin recorded a higher import value of N\$1,140,392 in the same year and the lowest import value of N\$407,956 for pumpkin was observed in 2012/13.

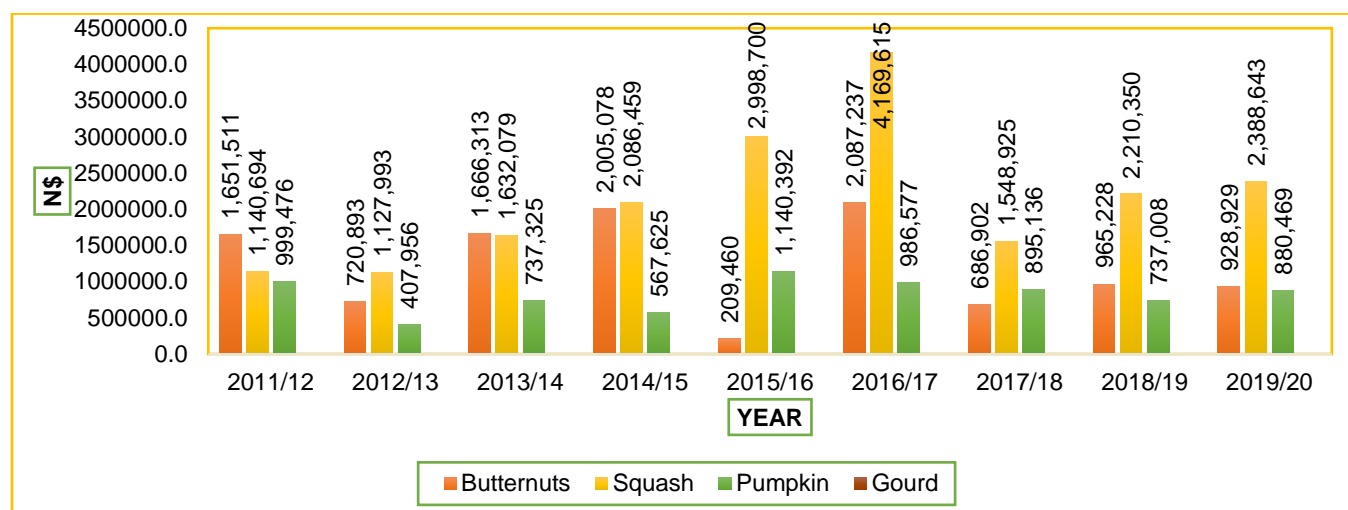


Figure 20: Namibia's butternut, squash, pumpkin, and gourd import value from 2011/2012 – 2019/2020 (Source: NAB, 2021)

Figure 21 shows the average butternut, squash, pumpkin and gourd import value from 2011/2012 to 2019/2020 (NAB, 2021).

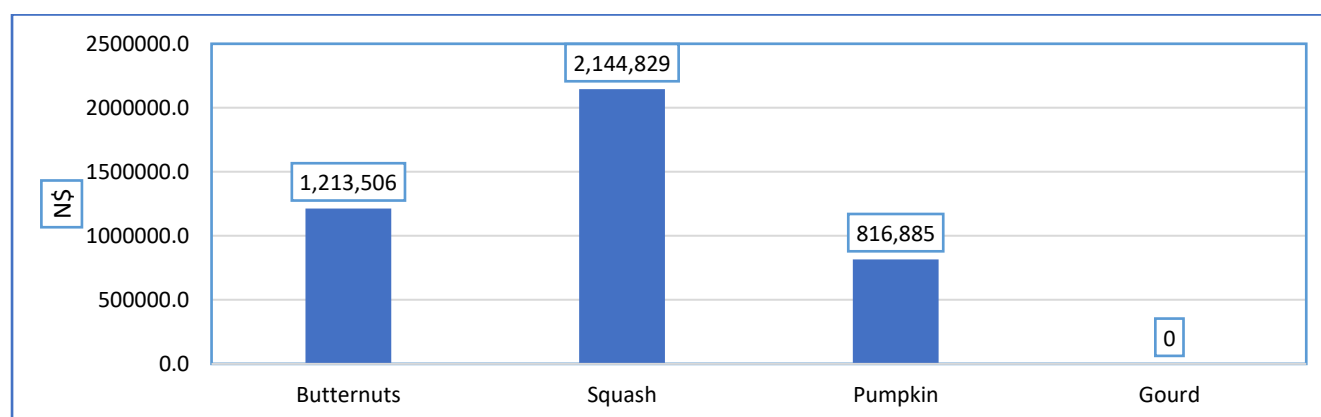


Figure 21: Average butternut, squash, pumpkin, and gourd import value from 2011/2012 – 2019/2020 (NAB, 2021)

Over the nine-year period, the average import value for butternut was N\$1,213,505.6, pumpkin with N\$816,884.9, and squash N\$2,213,505.6 per annum, while gourd recorded a zero value throughout (Figure 21).

EXPORT: The poor performance of *Cucurbita spp.* in the export market is shown in Figure 22. A downward trend in the butternut export market with the very little exported tonnage of pumpkin and squash is evidenced in the five-year period (2016/17 to 2021/22) as shown in Figure 22. However, Namibia still exports butternuts to countries such as Europe and the United States of America. The

country exported the highest volume of butternut (1,769 tonnes) in 2018/19 and the lowest volume (757 tonnes) in 2017/18 (NAB, 2021). There is, therefore, a need to explore more export market opportunities. Figure 22 further indicates that Namibia exported only 339 tonnes of pumpkin in 2016/17 and 306 tonnes of squash in 2021/22 (NAB, 2021).

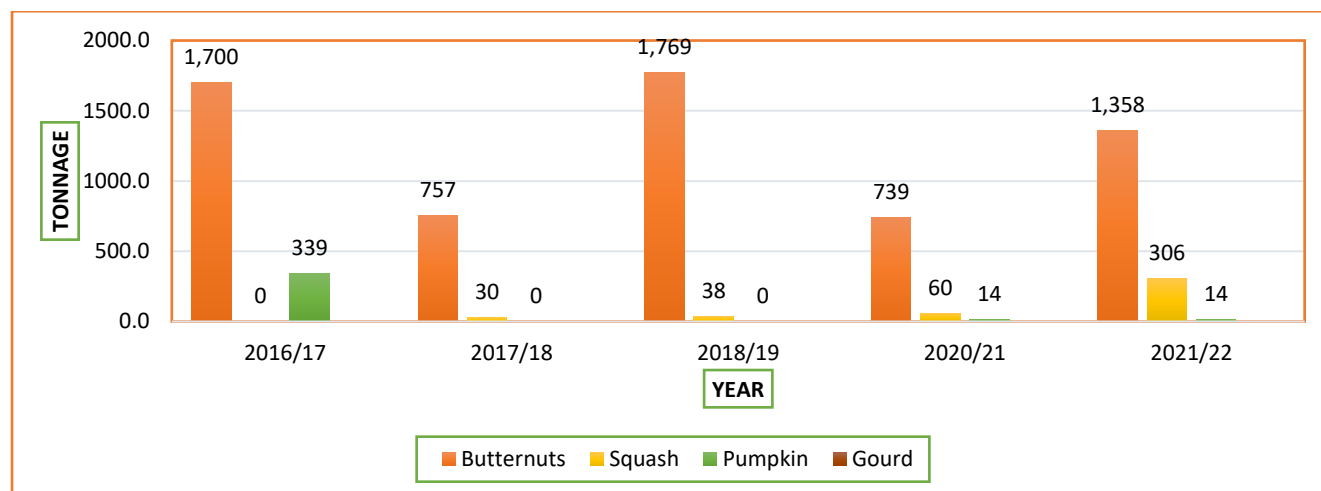


Figure 22: Namibia's butternut, squash, and pumpkin export volume (NAB, 2022)

On average, the export tonnage over five years shows that butternut recorded 1264.6 tonnes, followed by pumpkins with 73.5 tonnes, and squash at 86.7 with tonnes per annum as shown in Figure 23 below.

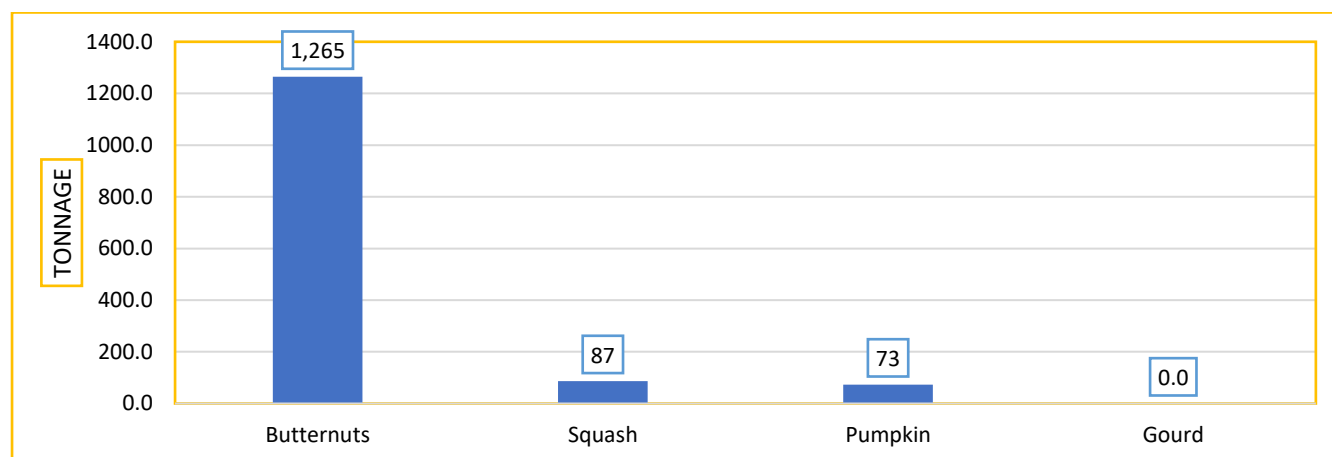


Figure 23: Average butternut, squash, and pumpkin export tonnage from 2016/17-2021/22 (NAB, 2022).

On the other end, an upward trend in butternut export value was displayed from 2016/2017 to 2021/2022, despite a slight decrease that was observed in the 2020/21 period (NAB, 2022). Over the five years, the highest export value was recorded in the 2021/2022 period at N\$8,745,637 (Figure 24). It is displayed in Figure 24 that there is an increasing trend in monetary value in the export market. Figure 24 further depicts that Namibia earned N\$725,848 value from pumpkin exports in 2016/17 and N\$273,000 value from squash exports in the 2021/22 period (NAB, 2021).

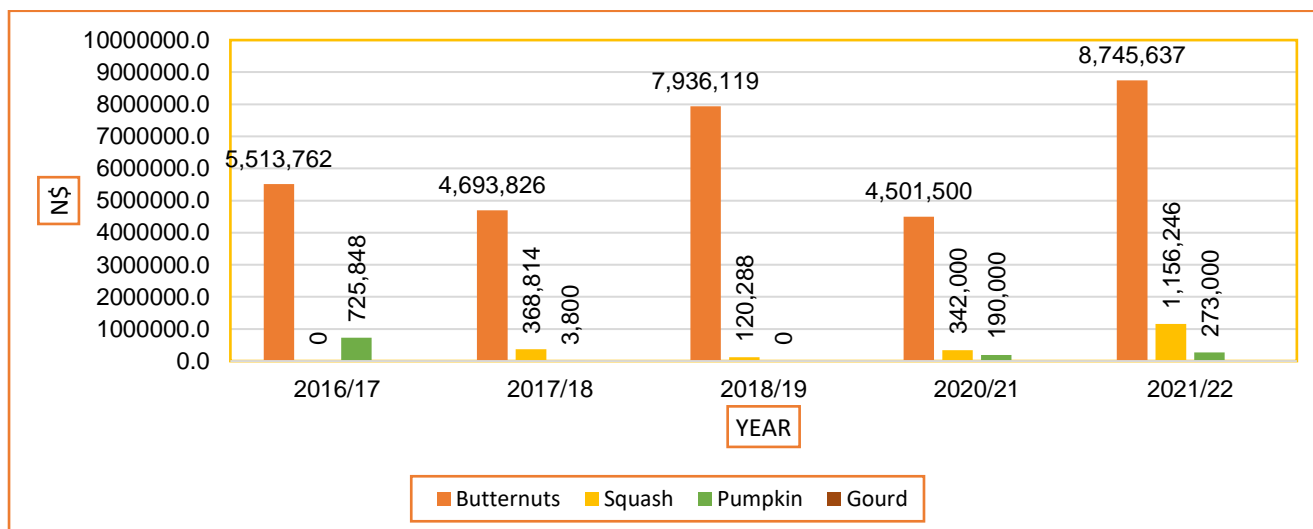


Figure 24: Namibia's butternut, squash, and pumpkin export value (NAB, 2022)

Currently, Namibia is performing poorly in the export market. However, according to this report, it can be deduced that due to the increasing production tonnage of butternut, pumpkin, and squash displayed over the past years in Namibia, signals a possible future expansion in the export market. Thus, there is a need to explore and increase Namibia's global export market share and identify new export market opportunities, especially in Southern Africa, Europe, and the United States of America.

On average, the export value over the five years shows that butternuts recorded N\$6,278,169, pumpkins recorded N\$238,530 and squash recorded N\$397,470 export value per annum as displayed in Figure 25.

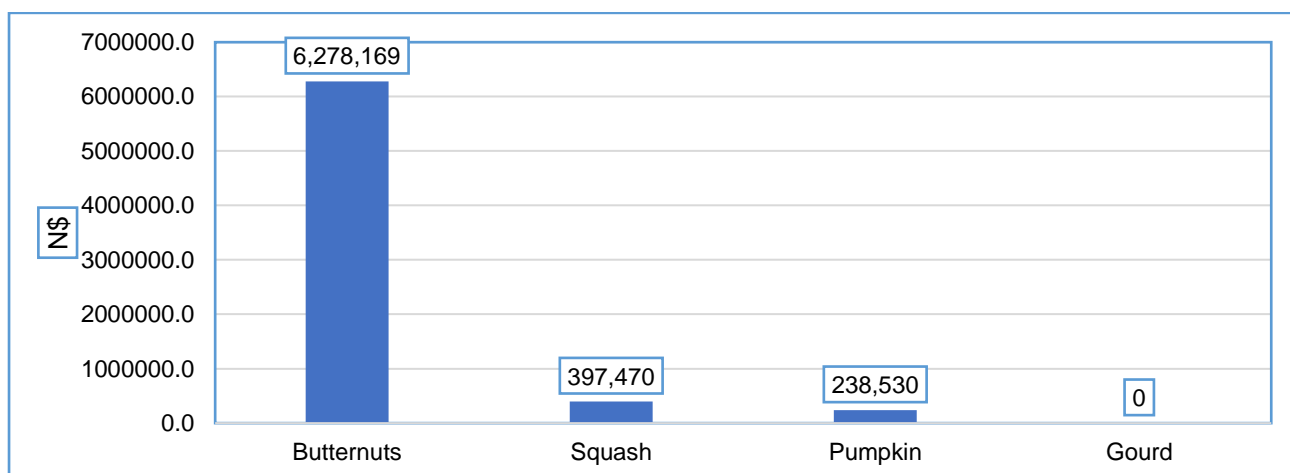


Figure 25: Average butternut, squash, and pumpkin export value for the 2016/17-2021/22 period (NAB, 2022)

CONSUMPTION: The domestic annual average *Cucurbita spp.* consumption for the past ten (10) years from 2011/2012 to 2020/2021 has been rising from 1,958 tonnes in 2011/2012 to almost 3,000 tonnes in 2019/2020. Over this period, Namibia recorded the lowest *Cucurbita spp.* consumption of 1,528 tonnes/annum in 2012/2013 (NAB, 2021).

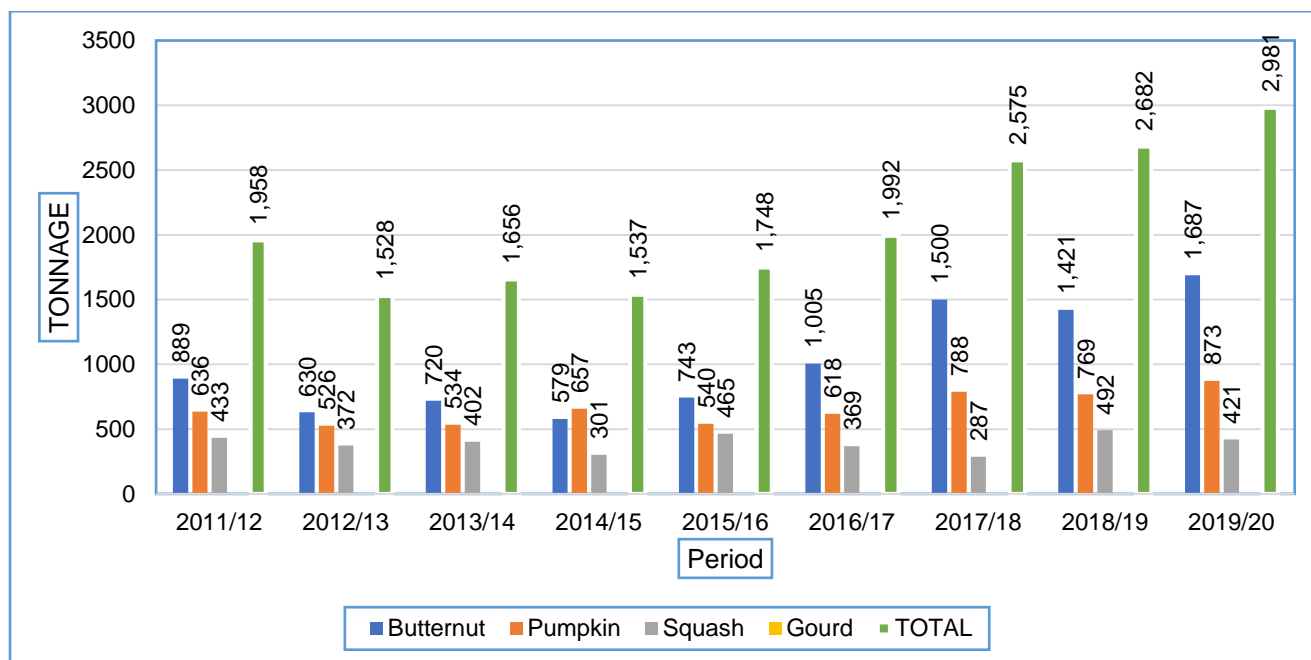


Figure 26: Total annual consumption tonnage of *Cucurbita spp.* during the 2011/12 - 2019/20 period (NAB, 2022)

Figure 27 below shows the average *Cucurbita spp.* consumption tonnage in Namibia from 2011/2012 - 2019/20

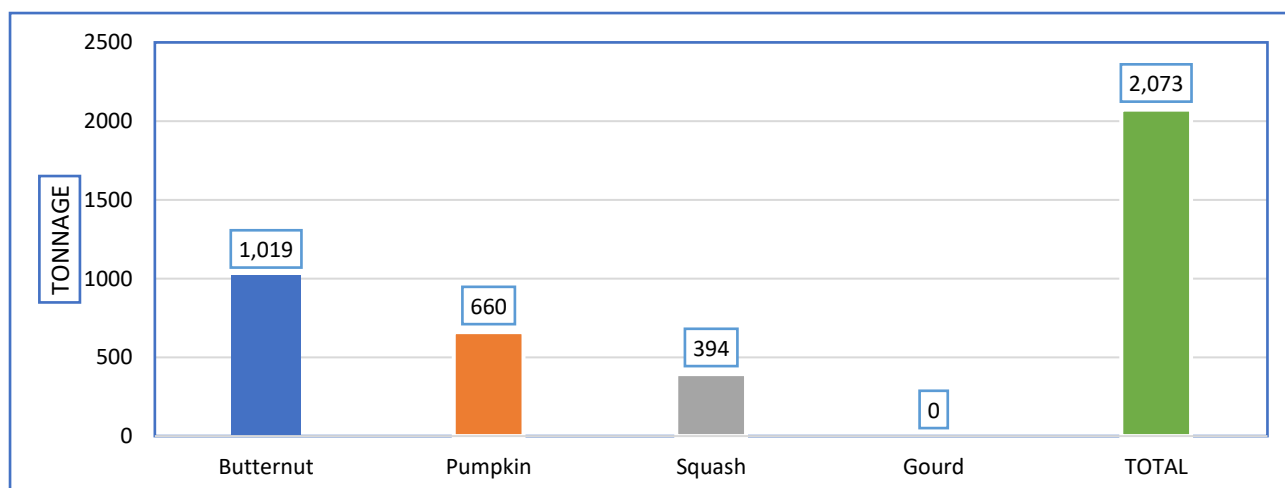


Figure 27: Average consumption tonnage of *Cucurbita spp.* from 2011/12-2019/20 (NAB, 2022)

On average, 2,073 tonnes of *Cucurbita spp.* are consumed per annum in Namibia. Butternut has the highest average consumption rate of 1,019 tonnes per annum among the others. This is followed by

pumpkin at 660 tonnes per annum and squash at 394 tonnes per annum, while gourd remains at the least or zero consumption rate (NAB, 2022).

5. KEY POTENTIALS TO UNLOCK GROWTH IN BUTTERNUTS PRODUCTION AND MARKET

Although the butternut market is expected to grow, according to FAOSTAT (2021), a decreasing trend in global butternut production was observed for the last five years, and a similar decreasing trend in butternut production was also displayed in Southern Africa. However, the increasing importation of butternuts is evident in both the global and Southern African regions. Butternuts are categorised as a superfood, and their nutritious benefits are increasing their popularity in dishes (Keatinge *et al.*, 2011). Henceforth, given Namibia's increasing production of *Cucurbita spp.*, opportunities exist for local producers to increase market share in global *Cucurbita spp.* export, particularly through production expansion and the adoption of good agricultural practices.

Promotion and awareness directed towards the importance of *Cucurbita spp.* consumption and its health benefits will be of a significant impact on the *Cucurbita spp.* market in Namibia. Local farmers should take advantage of the favourable market schemes which promote conducive local trading to expand on local and international market opportunities.

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