AGRICULTURE AND FOOD AUTHORITY

NUTS AND OIL CROPS DIRECTORATE

2017 STATISTICAL YEAR BOOK

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INTRODUCTION

1.1 Coconut

The coconut palm has many uses both as a cash crop and a food crop. All parts of a coconut are commercially exploitable. The roots, stem, leaves, flowers and fruits have a multiplicity of applications. The roots can be used for dye stuff and medicinal purposes, the stem/trunk for timber used for fuel, construction and furniture. Coconut inflorescence is used to produce toddy which when fermented is used as an alcoholic drink. The fruit is used as food and is also processed into many products such as copra, copra oil, virgin coconut oil, desiccated coconut, coconut milk, coconut cream and many more.

The coconut husk part of the fruit produces fibre which is used for making ropes, door mats and rugs. The palm contributes tremendously to the economy through its many products which are widely commercialized.

In general terms, the coconut sub-sector demonstrates an immense potential to drive economic development in the main coastal belt with over 150,000 households directly depending on the crop for food security, employment and income.

1.1.1 Area under coconut

Coconut is mainly grown in Kwale, Kilifi, Lamu, Mombasa, Tana River and Taita-Taveta Counties. Other upcoming counties with promising potential are Tharaka Nithi, Meru, Busia and Siaya County. Kilifi and Kwale county accounts for the highest area under coconut 37,814 hectares and 29,253 hectares respectively. Over the last two years, the area under coconut in Kenya has recorded marginal growth from 76,695 hectares to stand at 81,162.57 hectares. This can be attributed to the drought conditions experienced in the year 2016, the dry weather which could not support establishment of a new crop further suspension of the seedlings subsidy Programme previously undertaken by former KCDA is another factor. However is imperative to note that the area under coconut in Mombasa County continues to decline over time as a result of diminishing farmlands which are giving way to human settlement occasioned by rapid urbanization.

Table 1: Area under coconut 2016-2015

COUNTY	AREA (Ha)		% change
	2015	2016	
KILIFI	37,814	38,949	3
KWALE	29,253	29,984	2.5
LAMU	8,289	8,869	7
MOMBASA	167	159	(5)
TAITA TAVETA	80	81.2	1.5
TANA RIVER	1,056	1,067	1
Others	37	37.37	1
TOTAL	**76,695**	**81,162.57**	

1.1.2 Production treads 2006-2016

Total production of mature coconut grew from 162,376,321 pieces in 2006 to 254,360,248 pieces in 2016. During the same period production of tender coconut grew from 17,358,039 pieces in 2006 to 25,760,248 pieces while production of coconut wine also increased from 81,345,719 litres in 2006 to 154,000,349 litres. In line with the marginal increase in the area under coconut in 2016 there was similarly a slight increase in production of the major coconut products. This increase was as result of a combination of factors such as new coconut trees attaining fruit bearing age, trainings and sensitizations done by Nuts and Oil Crops Directorate and Ministry of agriculture extension staff on good agricultural practices and pests/ disease control.

The table below shows the production trend of the major coconut products 2006- 2016.

Table 2: production trends

Year	Products(Total volume of production in pieces/Ltrs 2006-2016		
	Mature nuts (Pieces)	Tender coconut (pieces)	Coconut wine (Ltrs)
2006	162,376,321	17,358,039	81,345,719
2007	165,948,598	17,399,916	83,135,325
2008	169,599,464	18,130,194	84,964,302
2009	173,330,379	18,401,538	86,767,032
2010	176,941,951	18,787,616	88,576,323
2011	180,593,255	19,173,693	90,385,614
2012	246,416,329	24,775,202	153,311,377
2013	223,422,589	22,926,095	128,927,875
2014	233,735,154	23,870,968	137,285,380
2015	244,047,719	24,815,842	145,642,864
2016	254,360,248	25,760,716	154,000,349

Source: Nuts and Oil Crops Directorate.

2.1 Macadamia

Macadamia is a high value export market cash crop and is mostly produced in central Eastern, Rift valley and coastal regions. The leading macadamia producing counties in Kenya are Embu (790Ha), Meru (877), Kiambu (269ha), Tharaka Nithi (210ha), Murang'a (405), Kirinyaga (214ha), Nyeri (346ha), and Baringo (295ha). Other counties which have a promising potential are Busia (129 ha), Trans Nzoia (14ha), and Machakos (127ha) County. Besides the above mentioned counties expansion is taking place into nontraditional production areas such as: Makueni, Uasin Gishu and Bungoma

2.1.1 Production

Over the last two years there was an increase in area under macadamia from 3,612 Ha to 3,873Ha in 2016 which translates to an increase in production from 20,875 MT in 2015 to 24,839 MT in 2016. Overall, there was a marked increase in value from

1530.80 million to 1924.70 million shillings as a result of the higher production realized and slight increase in international prices.

Table 3: Area under macadamia, production and the value 2015-2016

COUNTY	Area (Ha)		Quantity (MT)		Values million (Ksh)	
	2016	2015	2016	2015	2016	2015
BARINGO	295	282	681	659	36.76	34.92
BUSIA	129	115	0	0	0	0
EMBU	790	773	5,675	5,619	340.5	393.33
KIRINYAGA	235	225	1,671	1,600	100.26	42
MACHAKOS	127	100	2,004	1,744	120.2	122.1
NYANDARUA	119	171	875	710	68.55	56.35
MERU	877	525	5,068	2,903	544.1	203.2
KIAMBU	269	273	1,893	1,469	119.092	109.26
MURANGA	405	393	3,776	2,131	267.97	149.2
NYERI	346	263	1593	1,490	90	109.24
TAITA TAVETA	46	257	253	1,305	15.18	91.35
THARAKA NITHI	210	210	1,115	1,045	86.5	79.5
Others	25	25	235	200	135.48	140.38
TOTAL	**3,873**	**3,612**	**24,839**	**20,875**	**1,925**	**1,531**

Source: Nuts and Oil crops

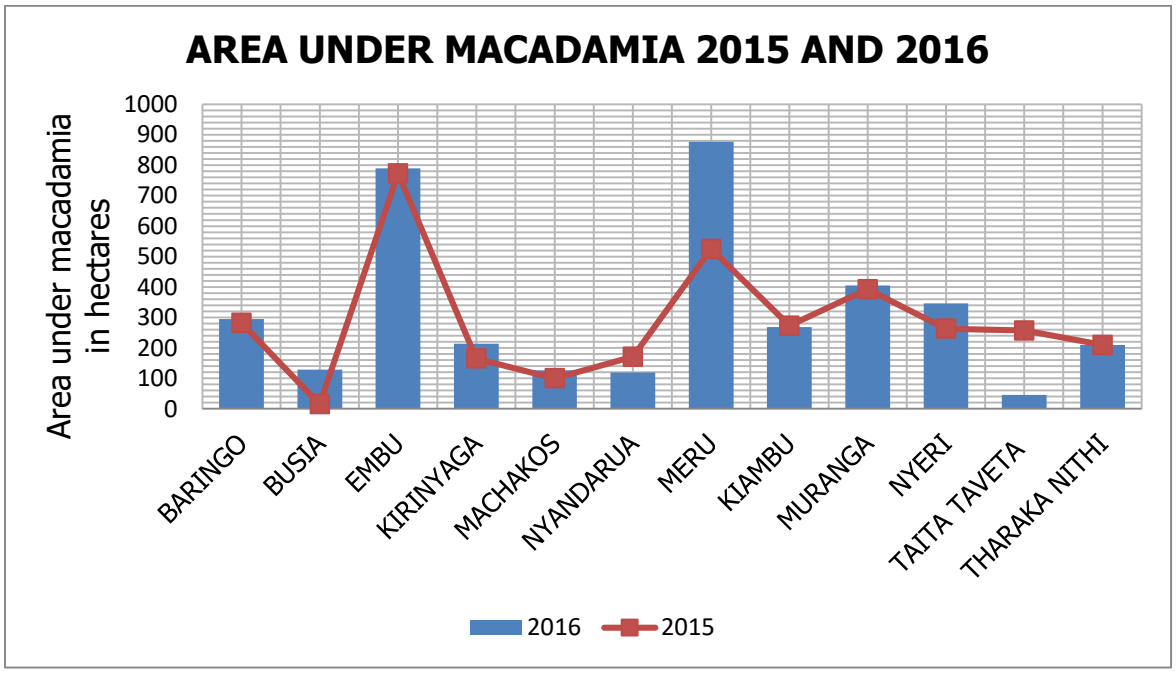
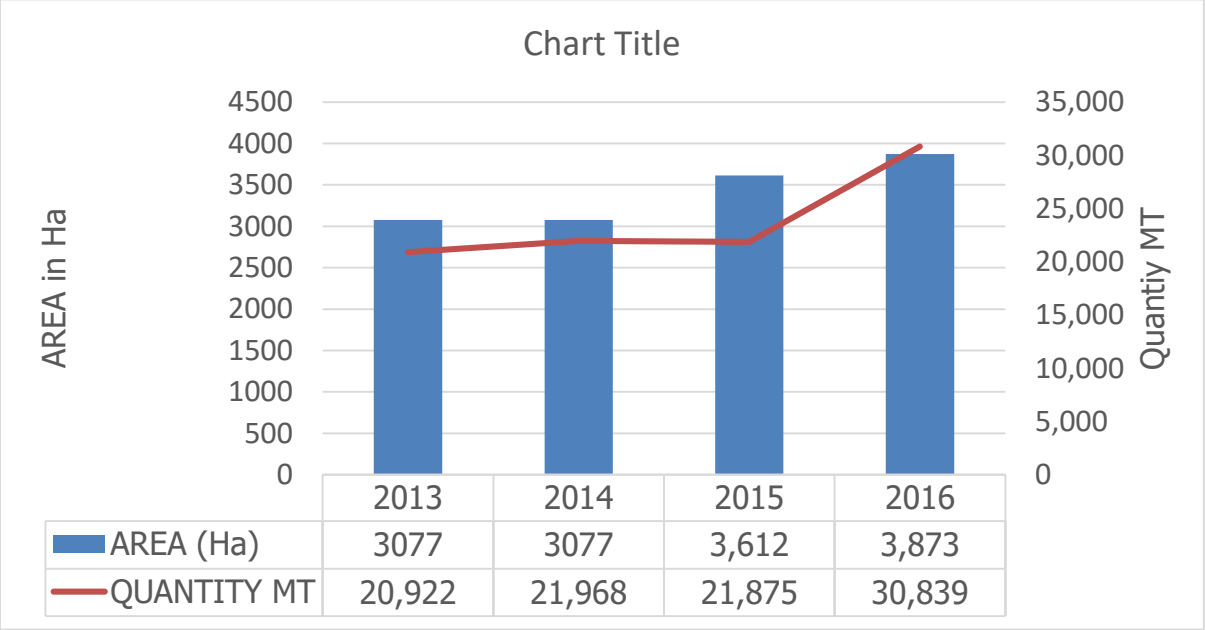


Figure 1: Area under macadamia

2.1.2 Area under macadamia 2013-2016

The area under macadamia stagnated at 3,077 ha in the year 2013 through to 2014, However there was a marginal increase from 3,612 ha in 2015 and to 3,873 ha in 2016. This increment can be attributed to campaigns for the planting of more macadamia trees in addition to expansion to other non-traditional regions such as Baringo and Busia which had not been captured in the year 2013 and 2014.

Overall from 2013 through to the year 2016 there has been increased production from 20,922 MT to 30,839 MT due improved husbandry and increased acreage. The illustration is as shown in the figure below.



3.1 Cashew nuts

Cashew nuts are mainly grown in Kwale, Kilifi, Lamu and Tana River. Cashew nut has also been reported to do well in Tharaka Nithi and Meru, Busia and Bungoma Counties. In 2016 Kilifi county reported the highest area under cashew nut (13,536 ha) followed by Kwale (7,610 ha). Lamu recorded a total of 8,293 ha and with only 240 ha being reported in Tana River County.

Overall the area under cashew nut stood at 26,814 hectares in 2016 which is a 4% drop from 29,899 hectares recorded in the year 2015, the drop resulted in reduced quantity of produce realized from 25,964 MT as reported in 2015 to 24,900 MT reported in 2016. The decline in area under the crop was brought about by the prolonged drought experienced in the region during the year.

Table 4: Area under cashew nuts, production and value trends 2015 -2016

COUNTY	Area (Ha)		Quantity (MT)		Values in Million (Ksh)	
	2016	2015	2016	2015	2016	2015
KILIFI	13,536	13,896	7,900	6,463	315	202
KWALE	7,610	8,710	4,698	7,512	188	300
LAMU	5,293	6,878	6,680	6,385	377	321
TANA RIVER	240	280	150	140	6	6
Others	135	135	5,472	5,464	5	4
Total	**26,814**	**29,899**	**24,900**	**25,964**	**891**	**833**

Source: Nuts and Oil Crops Directorate

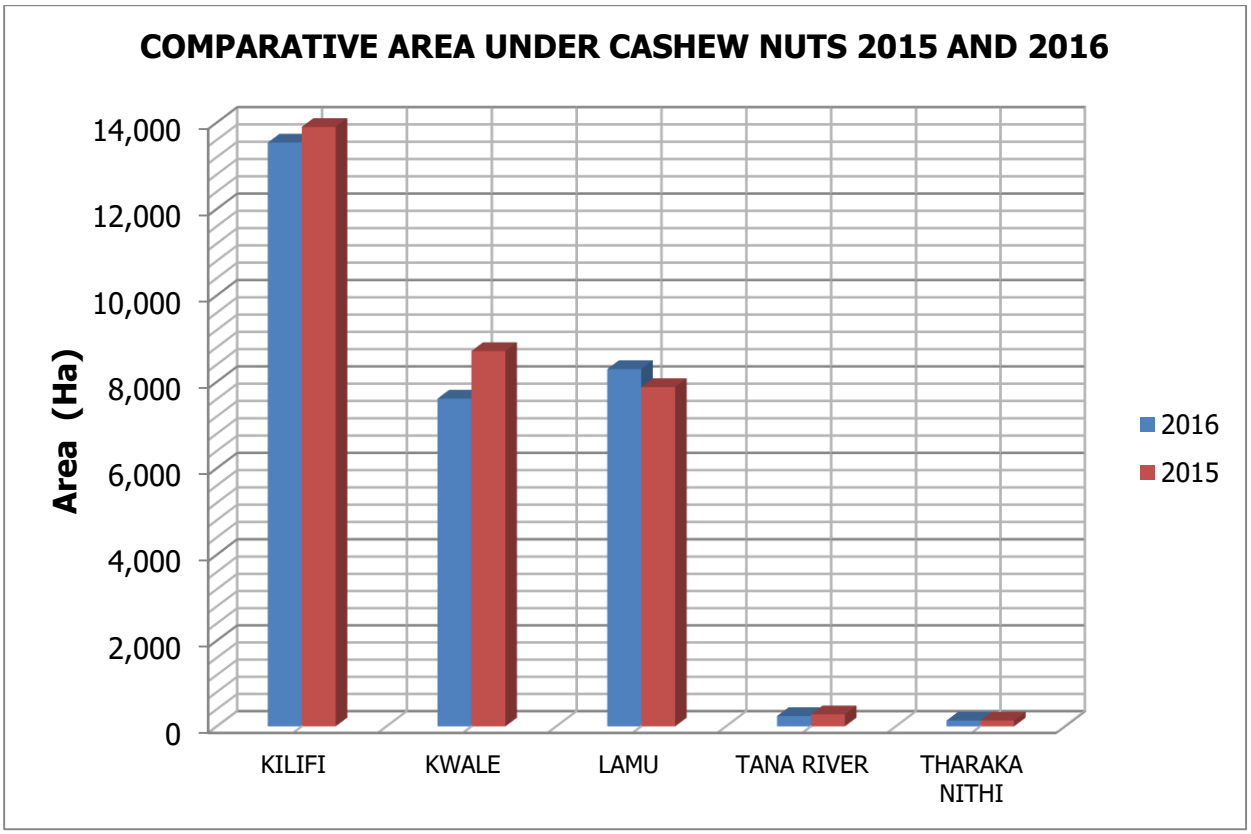


Figure 2: Area under cashew nuts 2015-2016

4.1 Peanuts

Peanuts are majorly grown in Western and Nyanza regions of the country. However the crop can be found in other parts of the country such as Eastern, Rift Valley and coastal region albeit in smaller quantities.

Specifically; Homabay, Kakamega, Vihiga, Migori, Kisumu, Bungoma, Siaya and Busia counties account for the highest amounts of groundnuts produced in Kenya. Other key producing counties are Elgeyo Marakwet Kisii, Baringo, Kwale, Lamu, Taita Taveta, and Trans Nzoia.

Overall the area under groundnut was at 21,637 hectares in 2016 compared to 19,384 hectares in 2015 recording a 12% surge. Homabay County recorded the highest area under groundnuts (6,426 hectares) during the year. Despite the increase in area under the crop there was a decrease in the quantity produced from 29,372 Mt in 2015 to 24,526 MT realized in 2016.This decrease was attributed to low quality of seed used by farmers and inadequate rainfall. For instance, farmers in Elgeyo, Marakwet County have been growing uncertified seed from their own produce, popularly known as *Cheplambus* local. These varieties are late maturing, small seeded, low yielding and susceptible to disease. The producers, generally plant retained seeds from their previous harvest or buy from other growers

The production is expected to increase as the farmers adopt the improved varieties currently being promoted such as CG7, ICGV 12991, ICGV 9991 and ICGV 83708 being introduced by ICRISAT in partnership with the researchers from Egerton University.

Table 5: Area, Quantity and value of Groundnuts

COUNTY	Area (Ha)		Quantity(MT)		Value In Million Ksh	
	2016	2015	2016	2015	2015	2016
BARINGO	531	582	655	601	78.10	72.80
BUNGOMA	606	1,041	843	1,655	81.51	104.84
BUSIA	1,068	1,030	1,327	1,266	149.36	144.50
ELGEYO MARAKWET	110	58	273	141	27.34	11.89
HOMABAY	6,426	5,211	5,598	3,965	627.91	424.67
KAKAMEGA	1,659	1371	1,583	6,266	128.34	561.28
KISII	233	218	192	145	16.43	13.43
KISUMU	1,770	1,625	2280	2,546	312.06	365.16
KWALE	63	57	208	405	19.58	22.70
LAMU	81	78	68	81	10.0	42.43
MERU	3,942	3,348	4,478	3,872	313.61	270.64
MIGORI	720	314	225	679	20.0	55.31
SIAYA	1,720	2,006	395	1,538	32.37	141.93
TAITA TAVETA	41	10	123	30	8.43	3.0
TANA RIVER	21	20	54	64	2.16	2.08
THARAKA Nithi	435	230	3,760	3,016	500.0	313.62
TRANSNZOIA	17	10	170	100	8.5	5.0
VIHIGA	111	110	133	155	13.84	12.68
WEST POKOT	50	40	93	58	8.48	5.5
Others	17	10	52	45	1.75	1.44
TOTAL	**21,637**	**19,384**	**24,526**	**26,628**	**2,359.75**	**2,574.90**

5.1 Bambara nuts

Bambara nut is an indigenous African crop considered a complete food as it contains sufficient quantities of protein, carbohydrate and fat. In addition to food it provides a beneficial farming system advantage for its potential to fix nitrogen in the soil. Bambara nut is reported to be tolerant to drought, poor soils and extreme heat, hence making it a suitable crop to the low-input production systems. It is also reported that under severe drought conditions where groundnuts did not have any

kernels, Bambara nut produces small filled pods. The yield potential of Bambara nut ranges between 497kg/ha and 799 kg/ha

Table 6: Area under Bambara, Production and Value trends

COUNTY	Area (Ha)		Quantity (Mt)		Value (Ksh.)	
	2016	**2015**	**2016**	**2015**	**2016**	**2015**
KWALE	10	10	60	100	3,600,000	6,000,000
BUNGOMA	306	306	4,502	4,727	130,000	600,000
VIHIGA	6	0	30	0	340,000	0
KAKAMEGA	91	61	811	146	66,647,000	14,925,250
LAMU	5	5	5	4	450,000	360,000
BUSIA	268	260	1000	963	292,117,829	142,441,860
Total	**686**	**642**	**6408**	**5940**	**363,284,829**	**164,327,110**

Exports of nuts and oil crops

Product	Year 2015		Year 2016	
	Exports (ton)	Export in million (KES)	Exports (ton)	Export in million (KES)
Desiccated coconut	5.4	0.02	1,502	3.01
Coconut milk/cream	0.24	0.1	133.4	16.3
Crude coconut oil	96.2	36.4	121.2	49
Coir fiber	-	-	67.8	3.71
Mature coconuts	250	0.5	-	-
Coir fiber handicrafts	-	-	12,645.6	4,529
Coconut hair oil	-	-	733.6	215

Values of coconut products exports for 2015 and 2016

2016 macadamia exports destinations by volume

Country of destination	Quantity (MT)
USA	3,006
NETHERLANDS	990
GERMAN	427
HONG KONG	345
JAPAN	240.5
THAILAND	117.7
OTHERS	387

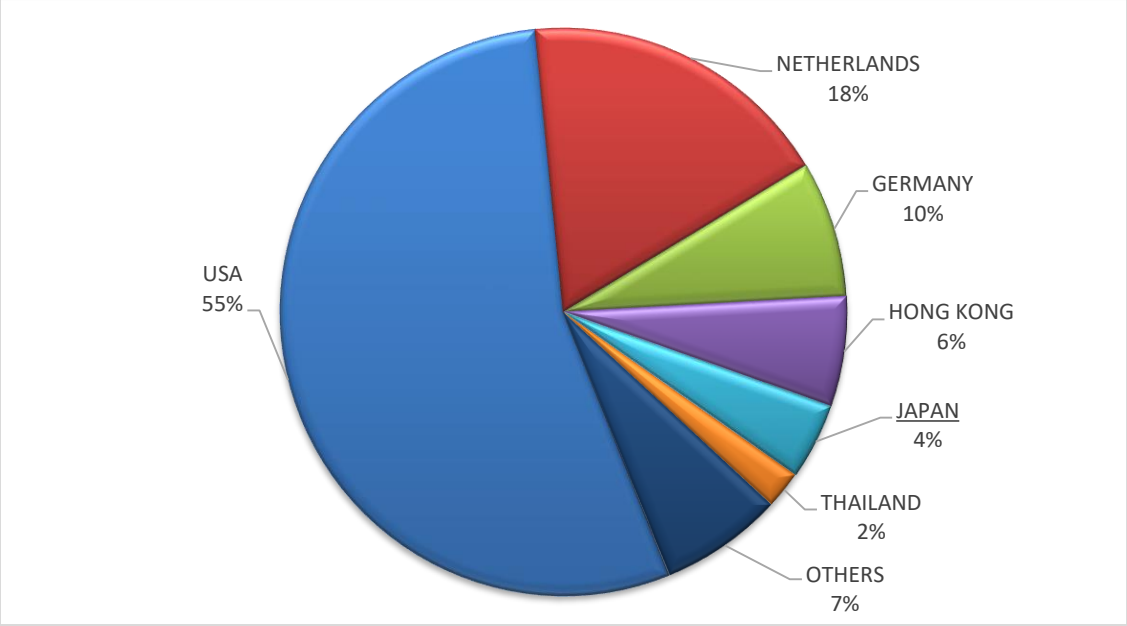
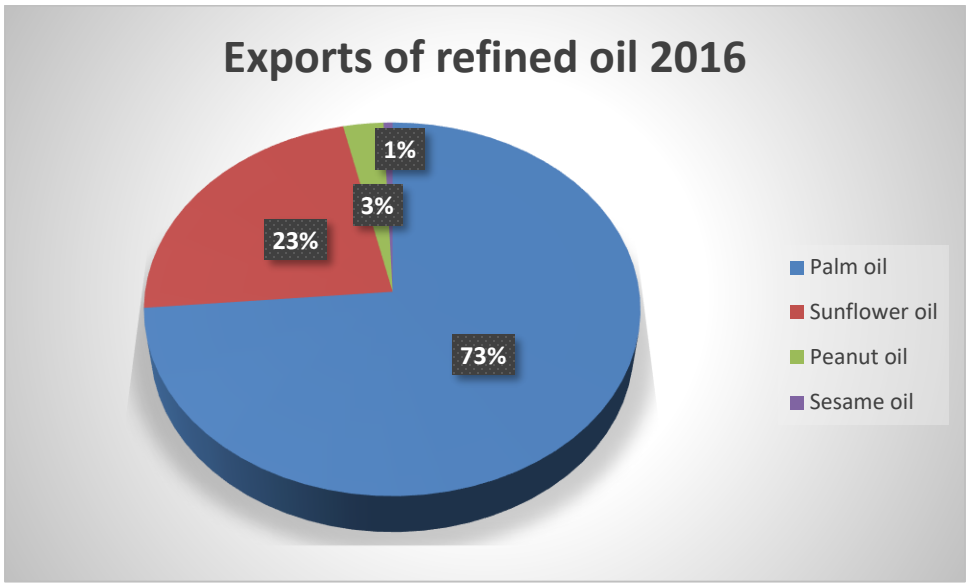


Table 12: Exports and imports of refined vs crude oil 2016

		Exports	Imports	Export value in millions (Ksh)	Import Value in millions (Ksh)
Refined oil	Palm oil	1,294.83	1,784.93	137.76	148.17
	Sunflower oil	402	1,415	41.25	167.0
	Peanut oil	50.5	-	0.2	-
	Sesame oil	11.32	9.15	0.92	1.78
Crude oil	Coconut oil	121.28	230.61	49.40	11.63
	Sunflower oil	21.72	3,600	0.86	338.88
	Palm oil	24,267	640,036	1,787	44,325

Refined palm oil reported the highest exports representing 73% of the total refined oil exported in 2016. Sunflower oil was second with 23% while peanut oil and sesame oil was represented by 3% and 1% respectively as illustrated in the figure below



Exports and imports 2017

Macadamia oil

Licensed Companies involved in the extraction of macadamia oil includes; Earth oils EPZ Ltd, Fairoil EPZ Ltd and Avoil industries Limited.

In 2016 a total of 176 Mt of macadamia oil was exported with an export value of Ksh. 74 million

Table 9: Macadamia oil exports 2017

MONTHS	QUANTITY (MT)	EXPORT VALUE (in millions)	DESTINATION
JANUARY	19.59	6.96	AUSTRALIA
FEBURARY	20.00	7.62	GERMANY
MARCH	19.31	6.86	AUSTRALIA
APRIL	31.02	10.13	UK
MAY	36.06	13.62	GERMANY
TOTAL	126.00	45.19	

Nuts and oil crops licensed players 2016-2017 FY

The Directorate registered and licences all scheduled nuts and oil crops processors, exporters and importers. Below is a summary of all registered/licenced players for July 2016 to March 2017

	License Category	Jul 2016 - Mar 2017
1	Processors and exporters	34
2	Exporters only	3
3	Importers and processors	2
4	Importers only	4
	Total	**43**