



# 2024

## YEAR BOOK OF STATISTICS

**Theme of AFA Yearbook 2024:  
“Data driven decision making to increase crop  
productivity, market access and regulation”**

**WE**

**DEVELOP**

**WE**

**PROMOTE**

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**REGULATE**

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## Introduction

The Authority annually publishes the AFA Year Book of Statistics, a publication with detailed information on various crop statistics focusing on agricultural and market performance as mandated under the AFA Act 2013 and Crops Act 2013.

The periodical is developed through compilation of different statistics on scheduled crops from all AFA directorates. The document is a significant resource of agricultural information to researchers and analysts, policy makers, dealers of scheduled crops, donor agencies, and the general public.

The AFA Year Book of Statistics 2024 (4th edition) is divided into seven chapters with each chapter providing comprehensive statistics relating to various scheduled crops overseen by respective directorates. It also highlights various challenges experienced by each directorate (scheduled crop) besides proposing the necessary interventions that should be considered to effectively and profoundly address the identified problems.

## Forward

Effective realization of agriculture transformation and inclusive growth which is one of the major agendas of the government as stipulated under Bottom-Up Economic Transformation Agenda 2022-2027 lies on availability of accurate, timely and relevant agriculture data which is the bedrock upon which strategic planning and informed decision-making predominantly in the agriculture sector rest. Agriculture sector stands as a cornerstone of economic development, providing substance and livelihoods for millions while serving as a critical component of national GDP. As evidenced by the economic survey of 2024, the sector's significant contribution amounting to 21.8 percent of overall GDP in 2023 underscores its pivotal role in the national economy. Yet the sector is besieged by a multifaceted crisis; rising food scarcity. Thus addressing food scarcity necessitates a comprehensive overhaul of agricultural practices and policies. One way to mitigate this issue is by transforming the agricultural industry to be more dynamic, profitable, sustainable, and productive. Also prioritization of research areas and resource allocation in extensive research and development in this sector is essential in developing strategic and outcome-based solutions thus attaining maximum impact.

The goal of the Authority's partnership with other organizations/institutions, including KALRO, universities, and other research centers, is to generate new research findings that will improve the value chains of the scheduled crops by acting as an engine for innovation, new business opportunities, and value-added products. These findings will also be disseminated to the general public and industry.

Finally, as we strive to implement both the Bottom-Up Economic Transformation Agenda 2022–2027 and Agriculture Sector Transformation and Growth Strategy (2019-2029), precise and reliable data remains crucial for planning, especially when it comes to government priority areas in agriculture including raising agricultural productivity and enhancing market access and value addition.

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## Executive Summary

Agriculture and Food Authority is mandated by the Crops Act, 2013 to facilitate marketing and distribution of the scheduled crops through monitoring and dissemination of agricultural market information. Moreover, article 8(j) of the Crops Act mandates the Authority to devise and maintain a system for regularly obtaining information on current and future production, prices and trade movements, thus the production of AFA Year Book of Statistics.

This AFA Yearbook of Statistics 2024 provides in a single volume a comprehensive compilation of regionally and international statistics on major scheduled crops, from 2017-2022. The key highlights of the AFA yearbook of statistics 2024 include:

**Coffee:** The production of Clean Coffee (CC) in 2022/23 was 48,649 MT compared to 51,853 MT in 2021/22, a reduction of 6.18 percent, attributed to harsh weather conditions that accelerated the infestation of Coffee Berry Disease (CBD) especially in the central region of the country.

**Sugar:** The quantity of sugar bagged (produced) in 2023 dropped to 472,773 MT from 796,554 MT that was produced in 2022, representing a 41 percent decrease. The decrease was mainly due to the closure of 10 milling factories for a period of four months (August-November) due to lack of mature sugarcane for milling.

**Pyrethrum:** The area under pyrethrum was 9,362 acres, indicating a notable growth of 134 percent compared to 2022. The increase could be attributed to purchase and distribution of planting materials to growers and the Directorate carried out capacity building of County extension officers in order to improve service delivery to growers.

**Maize:** The quantity of maize produced in 2023 increased to 4.37 million MT from 3.08 million MT recorded in 2022. This increase was attributed to favorable rainfall experienced in maize growing zones and availability of subsidized fertilizers to farmers.

**Beans:** The quantity of beans produced increased by 238,963 MT from 849,378 MT in 2022 to 1,088,341 MT in 2023 attributed to increased acreage and favorable rainfall.

**Macadamia:** A total of 44,364 MT of macadamia was produced in 2023 compared to 40,903 MT recorded in 2022, translating to 8.5 percent rise. The increase was attributed to increasing harvests in the non-traditional growing regions.

**Cashew nut:** The area under cashew nut was estimated at 24,437 Ha with an annual production of 8,997 MT valued at KES 451.62 million. The increase in production was mainly ascribed to initiatives by various institutions such as KALRO and AFA-NOCD to revitalize the cashew nut sector by distributing certified high-quality cashew seedlings to farmers in the production zones.

**Cotton:** The area under cotton rose to 12,152 Ha in 2023 from 8,585 Ha in 2022, resulting to a 42 percent increase. The increase was attributed to prompt disbursement of planting materials (cotton seed) and pesticides to farmers and the concerted efforts by the government to revitalize cotton, as a strategy to reduce importation of seed cake and lint, as envisioned in government's Bottom-Up Economic Transformation Agenda (BeTA) plan.

**Avocado:** The quantity of avocado produced increased by 43 percent from 441,594 MT in 2022 to 632,953 MT in 2023. Such increase was ascribed to the ongoing expansion of avocado farming in non-traditional areas due to high demand of the produce in the export markets.

In conclusion, the performance of the Agriculture sector improved in 2023 supported partly by government intervention through the fertilizer subsidy program and favorable weather conditions across the country. Agriculture remained the dominant sector, representing 21.8 percent of the total GDP (Economic Survey 2024).

## Acronyms and Abbreviations

ABC	African Birds Eye Chilly
ADC	Agriculture Development Corporation
AFA	Agriculture and Food Authority
ALV	African Leafy Vegetables
ASAL	Arid and Semi-Arid Land
ATDC	Agriculture Technology Development Centers
CC	Clean Coffee
CIF	Cost, Insurance and Freight
COMESA	Common Market for Eastern and Southern Africa
EABL	East African Breweries Limited
EAC	East African Community
ENI	Ente Nazionale Idrocarburi
EPZ	Export Processing Zone
EU	European Union
FOB	Freight on Board
FTA	Free Trade Area
GAP	Good Agricultural Practices
GBE	Green Bean Equivalent
GDP	Gross Domestic Product
GoK	Government of Kenya
HCD	Horticultural Crops Directorate
Ha	Hectares
ICO	International Coffee Organisation
ICPI	Integrated Coffee Productivity Initiative
ISO	International Sugar Organisation
KALRO	Kenya Agricultural & Livestock Research Organization
KES	Kenyan Shillings
KIBOS	Kibos Sugar and Allied Industries Limited
KNBS	Kenya National Bureau of Statistics
KSA	Kenya School of Agriculture
LB	Pound
MAPs	Medicinal and Aromatic Plants
MoALD	Ministry of Agriculture and Livestock Development
MPOICD	Miraa, Pyrethrum and Other Industrial Crops Directorate
MRPD	Market Research and Product Development
MT	Metric Tons
NOCD	Nuts and Oil Crops Directorate
Non-FTA	Non-Free Trade Area

RCN	Raw Cashew Nuts
RNI	Raw Nuts in Shell
SME	Small Medium Enterprises
SONY	South Nyanza Sugar Company
TC/TS	Tons of Cane / Tons of Sugar
PSR	Corporate Planning, Strategy and Enterprise Risk Management
PRE	Pyrethrum Refined Extract
UAE	United Arab Emirates
USA	United States of America
USD	United States Dollar

# COFFEE

- AGRICULTURE PERFORMANCE
- MARKET PERFORMANCE

## CHAPTER 1



## CHAPTER 1: COFFEE

### Introduction

Kenya is the fifth largest coffee producer in Africa. The country has been involved in coffee farming for over a century since 1893 when the crop was first introduced. Coffee is produced under two systems: smallholder farmers affiliated with co-operative societies and coffee estates, which are individually managed coffee plantations. Coffee farming supports about 1.5 million Kenyan households either directly or indirectly through forward and backward linkages. Currently the crop is grown in 33 counties. The leading coffee producing counties are Kiambu, Kirinyaga, Nyeri, Murang'a, Kericho and Bungoma. Table 1 below provides key highlights of the coffee sub-sector.

*Table 1: Area under Coffee, Production, Yields, Exports, Imports and Consumption from 2016/17-2022/23*

Year	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Area (Ha)	114,700	115,570	116,193	119,675	108,199	109,384	111,902
Production (MT)	38,620	41,375	44,989	36,873	34,512	51,853	48,649
Yields (MT/Ha)	0.337	0.358	0.387	0.308	0.319	0.474	0.437
Exports (MT)	43,379	43,290	50,600	46,162	41,797	42,858	47,957
Imports (MT)	-	-	-	9	653	3,763	1,392
Consumption (MT)	1,050	1,342	1,411	1,577	1,656	1,722	2,051

Source: AFA-Coffee Directorate

## 1.1. Agriculture Performance

### 1.1.1. Area under Coffee

The period under review registered an increase in area under coffee from 109,384 Ha in 2021/22 to 111,902 Ha translating to 2.29 percent rise. The increase in area could be attributed to introduction of coffee production in non-traditional coffee growing zones. Nandi County recorded the largest increase in area under coffee farming at 404 Ha. For more information, refer to Table 2.

Table 2: Area under Coffee Production by Counties 2022/23 - 2021/22 (Ha)

S/N	County	Area under Production -2022/23 (Ha)			Area under Coffee - 2021/22 (Ha)	Area Increase [2022/23- 2021/22]
		Estate	Co-op	Total		
1	Kiambu	11,759	8,610	20,369	20,369.00	0
2	Kirinyaga	1,742	8,471	10,213	10,089.10	123.9
3	Nyeri	1,131	8,856	9,987	9,841.00	146
4	Murang'a	954	8,517	9,471	9,413.00	58
5	Meru	939	7,848	8,787	8,708.40	78.6
6	Bungoma	1,276	6,822	8,098	7,725.00	373
7	Machakos	1,744	6,285	8,029	8,013.00	16
8	Embu	342	6,546	6,888	6,881.90	6.1
9	Kericho	899	4,200	5,099	4,842.00	257
10	Kisii	810	3,780	4,590	4,579.00	11
11	Tharaka Nithi	297	3,444	3,741	3,680.90	60.1
12	Nyamira	791	1,920	2,711	2,710.50	0.5
13	Trans Nzoia	1,974	386	2,360	2,198.00	162
14	Nandi	475	1,844	2,319	1,915.00	404
15	Nakuru	1,512	540	2,052	1,999.20	52.8
16	Makueni	32	1,663	1,695	1,695.00	0
17	Baringo	255	1,100	1,355	1,215.40	139.6
18	Migori	32	803	835	835	0
19	Uasin Gishu	443	219	662	341	321
20	Homa Bay	33	422	455	429	26
21	Kakamega	41	343	384	351	33
22	Narok	76	284	360	337.2	22.8
23	Bomet	44	249	293	273	0
24	Kisumu	185	52	237	106	131
25	Busia	10	204	214	200	14
26	Elgeyo Marakwet	78	114	192	154	38
27	West Pokot	53	133	186	178	8
28	Nairobi	181	0	181	181	0
29	Laikipia	5	53	58	56.4	1.6
30	Siaya	-	37	37	37	0
31	Vihiga	5	14	19	15	4
32	Kajiado	5	10	15	5.4	9.6
33	Taita Taveta	-	10	10	10	0
<b>Total</b>		<b>28,123</b>	<b>83,779</b>	<b>111,902</b>	<b>109,384.40</b>	<b>2,517.60</b>

Source: AFA-Coffee Directorate

### 1.1.2. Coffee Production

The production of Clean Coffee (CC) was 2022/23 was 48,649 MT compared to 51,853 MT in 2021/22, a reduction of 6.18 percent, attributed to harsh weather conditions that accelerated the infestation of Coffee Berry Disease (CBD) especially in the central region of the country. A total of 14,160.45 MT of CC were produced by the estates while the co-operatives produced 34,488.09 MT in the period under review. The top three counties in CC production were Kiambu, Kirinyaga and Nyeri respectively. Refer to Table 3 for more details.

**Table 3: Clean Coffee Production (MT) by County 2021/22 and 2022/23**

No	County	2021/22			2022/23			% Contribution by County
		Estate	Co-op	Total	Estate	Co-op	Total	
1	Kiambu	8,669.42	1,967.63	10,637.05	7,592.43	1,867.53	9,459.96	19.446
2	Kirinyaga	485.04	8,291.96	8,777.00	462.29	7,943.19	8,405.48	17.278
3	Nyeri	857.25	5,965.68	6,822.93	817.04	5,498.64	6,315.68	12.982
4	Murang'a	942.87	4,615.51	5,558.38	898.63	4,231.05	5,129.68	10.544
5	Kericho	802.33	3,524.00	4,326.33	764.69	3,959.40	4,724.09	9.711
6	Bungoma	81.27	2,886.87	2,968.14	77.45	2,495.37	2,572.82	5.289
7	Meru	205.14	2,301.08	2,506.22	195.51	2,170.40	2,365.91	4.863
8	Embu	219.64	2,124.19	2,343.83	209.34	1,722.68	1,932.02	3.971
9	Nandi	231.33	1,215.22	1,446.55	220.48	1,331.37	1,551.85	3.190
10	Machakos	479.99	818.42	1,298.41	457.47	824.98	1,282.45	2.636
11	Kisii	704.05	512.7	1,216.75	671.02	476.86	1,147.88	2.360
12	Tharaka Nithi	88.4	785.18	873.58	84.25	721.67	805.92	1.657
13	Trans Nzoia	685.95	97.61	783.56	653.77	113.68	767.45	1.578
14	Nyamira	335.79	465.19	800.98	320.04	414.32	734.35	1.510
15	Nakuru	415.06	261.71	676.77	395.59	223.78	619.37	1.273
16	Baringo	26.47	150.99	177.46	25.23	158.34	183.57	0.377
17	Elgeyo Marakwet	35.5	59.47	94.97	33.84	61.54	95.37	0.196
18	Uasin Gishu	80.71	25.82	106.53	76.92	15.53	92.45	0.190
19	Narok	77.79	6.07	83.86	74.14	5.31	79.45	0.163
20	Kisumu	54.57	1.94	56.51	52.01	10.52	62.53	0.129
21	Makueni	5.44	76.22	81.66	5.18	55.86	61.04	0.125
22	Migori	7.41	58.22	65.63	7.07	50.561	57.62	0.118
23	West Pokot	0.32	33.59	33.91	0.3	42.03	42.33	0.087
24	Bomet	24.49	18.54	43.03	23.34	15.57	38.91	0.080
25	Busia	-	0.32	0.32	-	33.26	33.26	0.068

No	County	2021/22			2022/23			% Contribution by County
		Estate	Co-op	Total	Estate	Co-op	Total	
26	Kakamega	11.45	16.71	28.16	10.91	18.03	28.94	0.059
27	Nairobi	17.68	-	17.68	16.85	-	16.85	0.035
28	Homa Bay	0.9	10.84	11.74	0.86	15.32	16.18	0.033
29	Laikipia	-	7.36	7.36	4.61	5.83	10.45	0.021
30	Kajiado	7.19	-	7.19	6.89	-	6.89	0.014
31	Vihiga	-	0.18	0.18	1.76	4.29	6.05	0.012
32	Siaya	-	-	0	0.22	1.21	1.44	0.003
33	Taita Taveta	-	-	-	0.31	-	0.31	0.001
<b>Total</b>		<b>15,553.45</b>	<b>36,299.22</b>	<b>51,852.67</b>	<b>14,160.44</b>	<b>34,488.09</b>	<b>48,648.55</b>	<b>100</b>

Source: AFA-Coffee Directorate

### 1.1.3. Coffee Productivity

The Kenya coffee production per bush is currently ranging between 2 Kgs-15 Kgs. During the year under review, coffee yields dropped to 0.44 MT/Ha from 0.47 MT/Ha recorded in the 2021/22. This was mainly attributed to harsh weather conditions. For more details, refer to Table 4.

Table 4: Average Yield of Coffee 2017/18 - 2022/23

Grower Category		2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
<b>Estate</b>	Area (Ha)	25,155	25,349	26,049	25,026	25,300	26,964
	Production (MT)	10,994	14,103	10,972	11,671	15,554	14,160.44
	Yield (MT/Ha)	0.44	0.56	0.42	0.47	0.61	0.53
<b>Co-operative</b>	Area (Ha)	90,415	90,844	93,626	83,173	84,085	84,744
	Production (MT)	30,381	30,881	25,901	22,840	36,299	34,487.82
	Yield (MT/Ha)	0.34	0.34	0.28	0.27	0.43	0.41
<b>Total</b>	Area (Ha)	115,570	116,193	119,675	108,199	109,385	111,902
	Production (MT)	41,375	44,989	36,873	34,512	51,853	48,649
	Yield (MT/Ha)	0.36	0.39	0.31	0.32	0.47	0.44

Source: AFA-Coffee Directorate

## 1.2. Market Performance

### 1.2.1. Auction and Direct sales

The total quantity of coffee sold under auction in 2022/23 dropped by 15.8 percent to 32,652 MT from 38,790 MT that was sold in 2021/22 MT due to changes in the regulations in the period under review. Similarly, the quantity of coffee sold under direct sales decreased by 21 percent from 11,841 MT in 2021/22 to 9,350 MT in 2022/23. The total quantity of coffee sold under both auction and direct sales was 42,001 MT valued at USD 176.43 million in the period under review, a decrease of 17 percent from 50,631 MT valued at USD 311.88 in 2022. For more details, refer to Table 5 for more details.

*Table 5: Auctions and Direct Sales Volumes and Value 2012/13-2022/23*

YEAR	Auction Sales		Direct Sales		Total	
	Weight (MT)	Value (USD) million	Weight (MT)	Value (USD) million	Weight (MT)	Value (USD) million
2012/13	38,141	127.16	3,724	17.99	41,865	145.16
2013/14	40,928	174.15	8,282	42.99	49,210	217.14
2014/15	34,754	142.51	7,183	40.03	41,937	182.54
2015/16	38,376	148.93	7,544	41.05	45,919	189.98
2016/17	34,091	159.2	6,756	43.74	40,846	202.94
2017/18	35,676	145.22	7,962	44.98	43,638	190.2
2018/19	35,605	109.56	10,283	47.95	45,888	157.52
2019/20	24,531	92.76	13,521	68.28	38,052	161.04
2020/21	25,126	141.24	10,444	68.24	35,570	209.48
2021/22	38,790	227.33	11,841	84.55	50,631	311.88
2022/23	32,652	127.86	9,350	48.572	42,001	176.43

Source: AFA-Coffee Directorate

### 1.2.2. Coffee Performance by Grades

A total of 27,682.68 MT worth USD 114,524,670.94 of main coffee grades were bought in 2022/23 representing 19 percent decline from 33,975.73 MT worth USD 210,425,903.30 of similar coffee category that were bought in 2021/22. The decline was attributed to a decrease in the overall quantity of coffee produced in the year under review. Similarly, a total of 1,946.50 MT worth USD 5,095,919.60 of coffee under miscellaneous category were bought in 2022/23 compared to 2,368.78 MT worth USD 8,803,121.08 of the same commodity that were bought in 2021/22. The total weight bought for the unwashed coffee category in the period under review stood at 3,022.81 MT worth USD 8,241,172.20 while 2,424.43 MT worth USD 8,011,773.44 were bought in the previous year. Refer to Tables 6 and 7 for more details.

Table 6: Grade Performance 2022/23

Category of coffee	Grade	No Bags Bought	Weight Bought (MT)	Min (USD)	Max (USD)	Avg price (USD)	Value (USD)	% Contribution by Value
<b>Main Coffee Grades</b>	AA	81,146	5,009.89	81	686	241.76	24,223,452.82	18.9
	AB	207,319	12,630.45	67	500	213.62	53,962,057.22	42.2
	C	99,044	6,123.67	68	345	187.61	22,977,243.10	18.0
	E	880	55.78	92	313	200.00	223,110.94	0.2
	PB	26,313	1,655.10	72	455	204.57	6,771,534.88	5.3
	T	22,367	1,386.59	42	233	129.23	3,583,662.68	2.8
	TT	13,124	821.20	41	250	169.48	2,783,609.30	2.2
	<b>Sub-Total</b>	<b>450,193</b>	<b>27,682.68</b>	<b>41</b>	<b>686</b>	<b>206.85</b>	<b>114,524,670.94</b>	<b>89.6</b>
<b>Miscellaneous</b>	HE	6,289	373.88	56	193	133.15	995,592.40	0.8
	SB	1,702	93.30	35	101	67.44	125,837.84	0.1
	UG	1,513	94.09	60	430	126.34	237,728.30	0.2
	UG1	13,764	853.26	52	233	151.82	2,590,751.08	2.0
	UG2	8,153	513.17	34	256	108.81	1,116,767.60	0.9
	UG3	295	18.81	48	100	77.72	29,242.38	0.0
	<b>Sub-Total</b>	<b>31,716</b>	<b>1,946.50</b>	<b>34</b>	<b>430</b>	<b>130.90</b>	<b>5,095,919.60</b>	<b>4.0</b>
<b>Un-washed Coffee</b>	MH	36,171	2,207.16	60	425	153.50	6,776,043.94	5.3
	ML	12,720	789.72	36	142	88.21	1,393,261.06	1.1
	NH	319	20.11	90	170	147.69	59,390.96	0.0
	NL	79	5.07	60	147	98.65	10,001.30	0.0
	RH	11	0.69	173	173	173.00	2,383.94	0.0
	RL	1	0.07	65	65	65.00	91.00	0.0
	<b>Sub-Total</b>	<b>49,301</b>	<b>3,022.81</b>	<b>36</b>	<b>425</b>	<b>136.32</b>	<b>8,241,172.20</b>	<b>6.4</b>
<b>Grand Total</b>		<b>531,210</b>	<b>32,651,992</b>				<b>127,861,762.74</b>	<b>100</b>

Source: AFA-Coffee Directorate

Table 7: Grade Performance 2021/22

Category of Coffee	Grade	No Bags	Weight Bought (MT)	Min (USD)	Max (USD)	Avg price (USD)	Value (USD)	% Contribution by Value
Main Grades	AA	130,128	8,004.14	83.00	502.00	359.46	58,871,492.16	26
	AB	257,020	15,674.72	65.00	500.00	308.23	98,281,539.40	43
	C	100,475	6,223.62	37.00	423.00	264.13	32,946,421.92	14
	E	1,497	94.65	129.00	385.00	255.19	516,392.56	0
	PB	29,029	1,830.78	77.00	455.00	299.11	11,077,037.94	5
	T	19,663	1,228.18	38.00	293.00	166.80	4,116,856.42	2
	TT	14,634	919.64	28.00	408.00	247.08	4,616,162.90	2
	Sub-Total	552,446	33,975.73	28.00	293.00	271.43	210,425,903.30	93
Miscellaneous	HE	5,253	327.75	68.00	282.00	181.30	1,298,800.30	1
	SB	1,877	101.53	30.00	234.00	85.68	164,092.48	0
	UG	2,490	153.68	50.00	313.00	158.27	431,239.72	0
	UG1	17,598	1,087.11	61.00	374.00	206.18	4,777,730.56	2
	UG2	10,949	686.57	25.00	317.00	134.48	2,110,809.66	1
	UG3	190	12.15	60.00	109.00	85.39	20,448.36	0
	Sub-Total	38,357	2,368.78	25.00	374.00	141.88	8,803,121.08	4
Un-washed	MH	29,468	1,797.49	52.00	250.00	191.11	6,855,349.62	3
	ML	10,031	626.94	35.00	199.00	92.44	1,156,423.82	1
	Sub-Total	39,499	2,424.43	35.00	250.00	141.77	8,011,773.44	4
<b>Grand Total</b>		<b>630,302</b>	<b>38,768.93</b>		<b>185.03</b>		<b>227,240,797.82</b>	<b>100</b>

Source: AFA-Coffee Directorate

### 1.2.3. Coffee Exports

Coffee exports in 2022/23 increased by 5,099 MT from 42,858 MT worth USD 298.56 million in 2021/22 to 47,957 MT worth USD 252.12 million to 52 destinations. Despite the increase volume of the coffee exported, the value in dollars decreased as a result of exchange rate variations in the period under review. USA, Belgium and Germany remained the top leading coffee export destinations for the two years buying 11,228 MT worth USD 59.20 million, 5,026 MT worth USD 29.12 million and 8,347 MT worth USD 39.34 million respectively in 2022/23. Refer to Table 8 and 9, for more details.

**Table 8: Coffee Exports by Destinations 2021/22 and 2022/23**

Destination	2021/22			2022/23		
	Weight (MT)	Value (USD) million	Value (KES) billion	Weight (MT)	Value (USD) million	Value (KES) billion
USA	8,104	62.32	7.19	11,228	59.2	7.93
Belgium	8,085	63.99	7.41	5,026	29.12	3.91
Germany	6,089	36.71	4.26	8,347	39.34	5.44
South Korea	4,348	31.49	3.62	3,119	16.88	2.25
Sweden	2,194	14.94	1.72	4,128	21.79	2.93
Australia	1,302	8.26	0.95	1,823	9.24	1.23
Denmark	1,281	8.35	0.96	1,165	7.82	1.13
Norway	1,235	10.63	1.15	1,156	8.45	1.14
Netherlands	1,394	6.32	0.73	1,322	6.22	0.85
Finland	1,218	7.12	0.82	1,069	6.02	0.77
Sub Total (Top 10)	35,250	250	29	38,384	204.07	27.58
Others (42)	7,608	48.43	5.56	9,573	48.05	6.53
<b>Total</b>	<b>42,858</b>	<b>298.56</b>	<b>34.37</b>	<b>47,957</b>	<b>252.12</b>	<b>34.11</b>

Source: AFA-Coffee Directorate

**Table 9: Export Volume and Value Trends**

Year	Export Volume (MT)	Export Earnings (KES) billions
2012/13	49,031	18.21
2013/14	47,175	19.73
2014/15	44,064	21.01
2015/16	44,343	20.89
2016/17	43,379	23.47
2017/18	43,290	23.31
2018/19	50,600	21.70
2019/20	45,263	22.02
2020/21	41,797	27.07
2021/22	42,858	34.37
2022/23	47,957	34.11

Source: AFA-Coffee Directorate

### 1.2.4. Coffee Exports by Form

Coffee was majorly exported in the form of green coffee totaling to 46,428.78 MT valued at USD 241.53 million in 2022/23. Table 10 gives more details on coffee export by form for 2021/22 and 2022/23.

**Table 10: Coffee Exports by Form 2021/22 and 2022/23**

Form	Weight (MT)		Value (USD) million	
	2021/22	2022/23	2021/22	2022/23
<b>Green Coffee</b>	41,756	46,428.78	291.85	241.53
<b>Roasted Coffee</b>	1,102	1,505.50	6.71	10.42
<b>Soluble Coffee</b>	-	22.23	-	0.17
<b>Total</b>	42,858	47,956.51	298.56	252.12

Source: AFA-Coffee Directorate

### 1.2.5. Coffee Imports

Coffee imports in the period under review decreased to 1,392.33 MT valued at USD 6,109,862.33 from 3,762.52 MT valued at USD 19,508,740.15 recorded in 2021/22. The imports consisted of Green, Roasted/Ground and Soluble Coffee at 92 percent, 2 percent and 6 percent respectively. The bulk of Kenya's imports in 2022/23 came from Uganda, Congo Democratic Republic and Tanzania. Refer to Tables 11 and 12 for more information.

**Table 11: Coffee Imports by Volume (MT) and Value (USD)**

Form	Volume (MT)		Value (USD)	
	2021/22	2022/23	2021/22	2022/23
<b>Green</b>	3,685.85	1,279.08	18,999,713.96	5,253,153.82
<b>Roasted/Ground</b>	60.93	32.45	370,890.98	198,452.99
<b>Soluble</b>	15.74	80.80	138,135.21	658,255.52
<b>Total</b>	3,762.52	1,392.33	19,508,740.15	6,109,862.33

Source: AFA-Coffee Directorate

**Table 12: Coffee Imports by Form and Country of Origin 2022/23**

Coffee Form	Country of Origin	Volume (MT)	Value (USD)
<b>Green Coffee - Not Decaffeinated</b>	Uganda	552.88	2,081,890.81
	Congo, Dem. Rep.	528.10	2,139,835.60
	Tanzania	58.92	100,676.16
	Brazil	57.51	279,245.38
	Nicaragua	39.32	284,053.40
	Rwanda	26.34	135,211.18
<b>Green Coffee - Decaffeinated</b>	Germany	11.16	126,614.60
	Tanzania	4.25	99,435.00
	Canada	0.60	6,191.69
<b>Roasted Coffee - Decaffeinated</b>	Germany	0.24	1,939.46
	United Arab Emirates	0.04	370.69
	Israel	0.01	49.81
<b>Roasted Coffee - Not Decaffeinated</b>	China	7.14	30,240.00
	Portugal	1.96	13,131.03
	Ethiopia	0.86	2,476.60
	United Arab Emirates	0.08	7,433.02
	India	0.48	4,381.89
	South Africa, Republic of	0.04	7,746.48
	Uganda	12.85	46,560.50
	Malaysia	8.71	83,844.03
	Italy	0.04	279.48
<b>Instant Coffee</b>	Tanzania	77.86	611,004.08
	Poland	2.94	47,251.44
<b>Total</b>		<b>1,392.33</b>	<b>6,109,862.33</b>

Source: AFA-Coffee Directorate

### 1.2.6. Domestic Coffee Consumption

Domestic coffee consumption in the year under review increased by 19 percent to 2,051 MT from 1,722 MT that was recorded in 2021/22. This growth is ascribed to the promotions conducted within universities, trade fairs and field days in various counties in Kenya targeting the youth. Refer to Table 13 for more details.

**Table 13: Consumption trend in GBE**

Year	Production MT(GBE)	Local Consumption (MT)- (GBE)
2016/17	38,620	1,050
2017/18	41,375	1,342
2018/19	44,989	1,411
2019/20	36,873	1,577
2020/21	34,512	1,656
2021/22	51,853	1,722
2022/23	48,649	2,051

Source: AFA-Coffee Directorate

### 1.2.7. Number of Coffee Houses

The development in consumer taste for coffee and a consistent supply of high-quality processed coffee has led to the creation of more coffee consumption outlets as a result of the growing number of stakeholders participating in value addition. The number of coffee shops and the parties involved in roasting and packaging coffee have both increased significantly in Kenya. The number of coffee shops increased from 231 in 2019 to 791 in 2023, indicating that customer demand for coffee is rising.

Moreover, the increase in the number of stakeholders involved in packaging and roasting from 25 in 2019/2020 to 35 in 2022/23 indicates that the coffee supply chain is becoming more active and competitive. Major hotels and coffee shops seem to be driving domestic consumption.



# SUGAR

- AGRICULTURE PERFORMANCE
  - MARKET PERFORMANCE
- CHALLENGES & INTERVENTIONS

## CHAPTER 2



## CHAPTER 2: SUGAR

### Introduction

Historically, sugar production has been a cornerstone of Kenya's economy, providing employment opportunities, supporting rural livelihoods and contributing significantly to the country's GDP. However, in recent years, the industry has faced numerous challenges that have tested its resilience and viability. Production inefficiencies were among the most urgent problems facing Kenya's sugar industry in 2023. Due to their inability to run at maximum efficiency, many of the nation's sugar mills resulted in high production costs. Furthermore, variable weather patterns, such as protracted droughts and unpredictable rainfall, had a negative impact on sugar cane output.

These adverse factors necessitated the government to put in place a number of reforms and investments to help revive the sugar sector. Such reforms primarily focused on upgrading infrastructure, modernizing production facilities and raising the industry's general competitiveness. Additionally, there was an increasing trend in the sugar industry towards diversification, with some producers looking into ethanol production as an alternate use for sugar cane.

In the year under review, the sugar industry had a total of 15 factories in operation and among these is West Valley, the newest factory that began its operation in 2023. The other factories included Chemelil, Muhoroni, Nzoia, South Nyanza, West Kenya, Mumias, Olepito, Busia, Butali, Kibos, Sukari, Transmara, Naitiri and Kwale.

### 2.1. Agriculture Performance

#### 2.1.1. Area under Cane by County

In 2023, sugarcane production was carried out in 14 counties namely Kakamega, Bungoma, Kisumu, Narok, Busia, Nandi, Homa Bay, Kericho, Migori, Trans Nzoia, Kwale, Uasin Gishu, Kisii and Siaya. Area under cane in 2023 increased by 6.81 percent to 259,018 Ha from 242,508 Ha that was recorded in 2022. The increase in area under cane was attributed to the coming on board of West Valley Sugar Company enlarging the area by 5,671 Ha and Naitiri Sugar Company expanding the area by 7,749 Ha. Kakamega county registered the largest area under cane at 50,628 Ha (19.55 percent) followed by Bungoma at 47,866 Ha (18.48 percent) in the year under review. Number of farmers increased from 292,586 in 2022 to 319,241 farmers in the year under review. Refer to Table 14 for more details.

**Table 14: Area under Sugarcane Production in Hectares, the Percentage Contribution per County and Number of Farmers**

County	Area under cane (Ha)		% Contribution by County		Number of Farmers	
	2022	2023	2022	2023	2022	2023
Kakamega	57,466	50,628	23.7	19.5	78,053	87,743
Bungoma	41,153	47,866	17	18.5	82,038	100,825
Kisumu	27,448	29,516	11.3	11.4	18,812	20,732
Narok	19,211	17,447	7.9	6.7	19,716	11,899
Busia	20,692	22,337	8.5	8.6	28,727	30,827
Nandi	17,227	23,801	7.1	9.2	13,495	17,091
Homa Bay	13,692	14,311	5.6	5.5	15,120	15,141
Kericho	9,661	14,751	4	5.7	8,823	12,389
Migori	16,976	17,498	7	6.8	21,390	13,116
Trans Nzoia	6,958	6,269	2.9	2.4	2,219	2,025
Kwale	7,467	7,467	3.1	2.9	245	246
Uasin Gishu	3,274	3,883	1.4	1.5	2,406	3,378
Kisii	648	1,759	0.3	0.7	983	2,061
Siaya	635	1,485	0.3	0.6	559	1,768
<b>Total</b>	<b>242,508</b>	<b>259,018</b>	<b>100</b>	<b>100</b>	<b>292,586</b>	<b>319,241</b>

Source: AFA - Sugar Directorate

### 2.1.2. Area under Cane by Factory Zones

The area under cane consists of both the nucleus and out growers. During the period under review, the area under cane by nucleus farms was 15,899 Ha, an 11.83 percent increase from 14,217 Ha that was registered in 2022. The area under cane by out growers also registered a significant increase of 14,829 Ha from 228,291 Ha that was recorded in 2022 to 243,120 Ha in the year under consideration. Refer to Table 15 and 16 below for more details.

**Table 15: Area under Sugarcane by Factory 2022 and 2023 in Hectares**

Factory	Nucleus		Out growers*		Total	
	2022	2023	2022	2023	2022	2023
Chemelil	1,750	1,862	16,385	17,108	18,135	18,970
Muhoroni	1,393	1,395	14,125	13,861	15,518	15,256
Mumias	208	1,123	5,539	9,883	5,747	11,006
Nzoia	2,361	2,300	16,078	14,634	18,439	16,934
South Nyanza	2,289	2,425	5,232	4,704	7,521	7,129
Kibos	791	995	8,642	10,278	9,433	11,273

Factory	Nucleus		Out growers*		Total	
	2022	2023	2022	2023	2022	2023
Soin	-	-	2,809	2,850	2,809	2,850
Butali	-	-	24,717	17,988	24,717	17,988
West Kenya	-	-	45,972	49,688	45,972	49,688
Miwani	1,162	991	-	-	1,162	991
Sukari	-	-	24,268	29,919	24,268	29,919
Transmara	38	17	18,701	13,950	18,739	13,966
Kwale	4,033	4,308	3,434	3,159	7,467	7,467
Olepito	34	44	9,927	10,107	9,961	10,151
Busia	158	395	11,665	10,817	11,823	11,211
Naitiri	-	-	20,797	28,546	20,797	28,546
West Valley	-	44	-	5,627	-	5,671
<b>Total</b>	<b>14,217</b>	<b>15,899</b>	<b>228,291</b>	<b>243,120</b>	<b>242,508</b>	<b>259,018</b>

\*Note: the area does not include the non-contracted farmers

Source: AFA - Sugar Directorate

Table 16: Area under Sugar Cane by Factory from 2017-2023 in Hectares

Factory	2017	2018	2019	2020	2021	2022	2023
Chemelil	17,520	17,005	16,905	18,186	18,012	18,135	18,970
Muhoroni	15,014	13,850	13,184	13,775	15,282	15,518	15,256
Mumias	21,538	13,034	1,925	198	274	5,747	11,006
Nzoia	24,675	20,084	18,046	18,775	18,918	18,439	16,934
South Nyanza	13,226	11,597	10,113	8,959	8,803	7,521	7,129
Kibos	5,946	6,277	8,013	7,393	8,087	9,433	11,273
Soin	1,744	1,825	1,822	1,915	2,799	2,809	2,850
Butali	18,487	15,526	14,913	19,749	24,021	24,717	17,988
West Kenya	29,721	38,868	46,716	48,011	59,048	45,972	49,688
Miwani	3,651	4,017	1,938	1,900	1,615	1,162	991
Sukari	6,419	11,986	15,447	17,710	21,251	24,268	29,919
Transmara	11,347	14,958	15,075	15,308	16,980	18,739	13,966
Kwale	9,477	9,488	9,488	6,763	7,287	7,467	7,467
Olepito	4,949	7,942	8,875	9,013	9,612	9,961	10,151
Busia	7,501	15,943	14,978	12,858	11,017	11,823	11,211
Naitiri	-	-	-	-	-	20,797	28,546
West Valley	-	-	-	-	-	-	5,671
<b>Total</b>	<b>191,215</b>	<b>202,400</b>	<b>197,438</b>	<b>200,513</b>	<b>223,006</b>	<b>242,508</b>	<b>259,018</b>

Source: AFA - Sugar Directorate

### 2.1.3. Area Harvested by Factory

The total area of 83,162 Ha was harvested in 2023 compared to 117,960 Ha in 2022 representing a significant decline of 29.50 percent. The decrease in area harvested was as a result of 10 sugar mills closing down from July to November 2023 to allow sugarcane to mature. Sukari industry registered the largest area harvested in 2023 at 18,114 Ha. Refer to Table 17 below for more details.

*Table 17: Area Harvested by Factory from 2017-2023 in Hectares*

Factory	2017	2018	2019	2020	2021	2022	2023
Chemelil	4,220	4,971	1,143	6,956	7,134	5,071	2,573
Muhoroni	5,217	2,641	4,294	5,403	5,276	4,871	2,776
Mumias	5,951	2,175	-	-	-	1,880	4,091
Nzoia	9,891	8,230	4,191	7,136	6,137	3,361	2,007
South Nyanza	6,845	6,464	2,780	1,285	3,249	3,076	4,019
Kibos	2,631	2,717	1,916	2,894	3,517	4,111	2,811
Soin	-	-	-	-	-	-	-
Butali	7,510	11,204	8,656	13,273	10,977	13,092	5,743
West Kenya	14,121	18,000	22,977	12,337	15,158	14,898	14,621
Sukari	5,357	9,378	12,951	4,562	5,620	4,718	18,114
Transmara	3,255	3,910	4,587	21,366	28,149	39,121	7,897
Kwale	2,711	2,390	319	5,833	1,331	3,677	-
Olepito	-	1,000	3,422	3,229	3,498	3,646	3,727
Busia	-	-	4,288	5,406	3,242	4,101	3,213
Naitiri	-	-	-	-	-	12,336	9,412
West Valley	-	-	-	-	-	-	2,160
<b>Total</b>	<b>67,709</b>	<b>73,080</b>	<b>71,524</b>	<b>89,680</b>	<b>93,288</b>	<b>117,960</b>	<b>83,162</b>

Source: AFA - Sugar Directorate

### 2.1.4. Cane Deliveries, Yields and Sugarcane Price

The total quantity of cane deliveries declined by 3,243,706 MT from 8,799,769 MT that were delivered in 2022 to 5,556,063 MT recorded in the year under consideration. The decrease was attributed to low availability of mature cane for harvesting, which resulted to cane yields dropping from 63 MT/Ha in 2022 to 54.95 MT/ Ha in 2023.

The average cane price paid to farmers in 2023 was KES 5,333 per MT compared to KES 4,514 per MT in 2022, registering an increase of KES 819 per MT, attributed to rise in demand of sugarcane. For more details, Refer to Table 18.

**Table 18: Area under Sugarcane, Area Harvested, Average yield and Sugarcane prices from 2017-2023**

Year	2017	2018	2019	2020	2021	2022	2023
Area under sugar cane (Ha)	191,215	202,400	197,438	200,513	223,006	242,508	259,018
Area harvested (Ha) *	67,709	73,080	71,525	89,680	93,288	117,960	83,162
Total cane deliveries (production) in MT	4,751,605	5,262,157	4,605,102	6,810,898	7,659,120	8,799,769	5,556,063
Cane delivered by non-contracted farmers in MT	1,004,304	1,233,137	938,838	1,264,169	1,133,314	1,379,960	822,539
Average yield (MT/Ha) **	55.34	55	51	62	70	63	55
Average cane prices paid to Farmers (KES/MT)	4,237	3,988	3,815	3,707	3,912	4,514	5,333
* Exclude area harvested by non-contracted farmers							
** Yield calculated = (Total cane delivery-cane by non-contracted farmers)/area harvested							

Source: AFA - Sugar Directorate

## 2.2. Market Performance

### 2.2.1. Sugarcane Crushed, Sugar Made and Conversion Ratio

The total sugarcane crushed in 2023 dropped significantly by 36.80 percent to 5,483,900 MT from 8,676,181 MT crushed in 2022 due to inadequate mature cane for crushing in the year under review. The decline in the quantity of sugarcane crushed translated to a major reduction in the quantity of sugar made, decreasing to 473,902 MT in 2023 from 800,436 MT that was made in 2022, representing a 40.80 percent decrease. Additionally, the high cane to sugar ratio resulting from the crushing of the immature cane further reduced the sugar output during the period under review. Refer to Table 19 for more details.

**Table 19: Cane Deliveries, Cane Crushed, Sugar made and TC/TS Ratios 2017-2023**

Year	2017	2018	2019	2020	2021	2022	2023
Cane Deliveries	4,751,605	5,262,157	4,605,102	6,810,898	7,659,120	8,799,769	5,550,701
Cane Crushed	4,640,771	5,383,759	4,604,712	6,880,203	7,647,224	8,676,181	5,483,900
Sugar Made	375,012	440,805	378,117	575,506	701,552	800,436	473,902
TC/TS	12.37	12.21	12.18	11.96	10.9	10.84	11.57

Source: AFA - Sugar Directorate

### 2.2.2. Sugar Production, Sales and Closing Stocks

The quantity of sugar bagged (produced) in 2023 dropped to 472,773 MT from 796,554 MT that was produced in 2022, representing a 41 percent decrease. The decrease was mainly due to the closure of 10 milling factories for a period of four months (August-November) due to lack of mature sugarcane for milling. For more details refer to Annex 5 to 11.

The quantity of sugar sales in the year under review declined to 460,599 MT from 792,203 MT that were sold in 2022. The decline in the total sugar sales could be attributed to the significant decrease in the quantity of sugar bagged.

The total sugar closing stocks held by millers increased to 22,523 MT in 2023 from 10,472 MT in 2022 representing a 115 percent rise. The increase in closing stock was due to improved sugar production as a result of resumption of operations by the ten millers in December 2023. The situation was aggravated by increased sugar imports recorded in the year under review. Refer to Table 20, for more details.

*Table 20: Sugar Production, Sales and Closing Stocks (MT)*

Year	2022	2023
<b>Sugar Bagged (produced)</b>	796,554	472,773
<b>Sugar Sales</b>	792,203	460,599
<b>Closing stocks *</b>	10,472	22,523

\*Closing stocks held by the local sugar mills

Source: AFA-Sugar Directorate

### 2.2.3. Molasses Production, Sales and Closing Stocks

The significant decline in the quantity of sugarcane milled translated to subsequent decrease in the quantity of molasses produced in 2023. During the year under review, 229,970 MT of molasses was produced compared to 333,989 MT that was realized in 2022, translating to a 31.14 percent decrease. In addition, the domestic sales for molasses in 2023 stood at 225,057 MT, a 32.14 percent decline from 331,632 MT of molasses sales that were made in 2022. The industry recorded an increase of 36.68 percent of the closing stock of molasses in 2023 compared to 11,075 MT that was recorded in 2022. For more details, Refer to Table 21.

**Table 21: Molasses Production, Sales, Closing Stocks and Ex-Factory Prices from 2017-2023**

Year	Production (MT)	Domestic sales (MT)	Closing stocks (MT)	Ex-Factory Prices/ MT
2017	192,717	184,116	12,918	15,617
2018	211,064	193,694	16,604	6,991
2019	186,257	189,038	16,120	6,256
2020	269,772	262,792	17,260	6,361
2021	295,574	304,088	8,821	4,535
2022	333,989	331,632	11,075	11,362
2023	229,970	225,057	15,137	32,069

Source: AFA-Sugar Directorate

### 2.2.4. Sugar Prices

During the year under review, the industry witnessed an all-time high sugar prices at all levels (ex-factory, wholesale and retail). This occurred as a result of a combination of factors ranging from high inflation rate, fluctuating exchange rates and reduction in domestic sugar production. The ex-factory sugar prices for a 50kg bag in 2023 ranged between KES 5,200 and KES 10,500. The average ex-factory price of the similar quantity of sugar in the period under review rose by KES 2,315 to KES 7,999 from KES 5,684 that was recorded in 2022. Similarly, the wholesale price for a 50kg bag of sugar ranged between KES 5,500 and KES 11,200 in 2023 while the average wholesale price for the same 50kg bag of sugar was KES 8,405, a 35.59 percent rise from KES 6,199 that was recorded in the previous year. On the other hand, the price of a kilo of sugar in 2023 range between KES 115 to KES 250 while the average retail price rose by KES 56.23 to KES 196.16 from KES 139.93 recorded in 2022. Refer to Table 22 for more information.

**Table 22: Summary of Sugar Prices**

Month	Ex- factory per 50kg bag			Wholesale per 50kg bag			Retail per Kg		
	Range		Mean	Range		Mean	Range		Mean
	2022	2023	2023	2022	2023	2023	2022	2023	2023
January	4914 - 5500	5300 - 6849	6087	5300 - 6500	5600 - 7200	6663	110-150	130 - 185	155.01
February	5100 - 6000	5200 - 6700	5432	5200 - 6400	5500 - 7000	5922	110-195	115 - 180	147.41
March	5000 - 5350	5300- 7150	6661	5240- 6000	6850 - 7800	7171	115 - 180	139 - 185	156.51
April	5050 - 5300	6500 - 7200	7055	5100 - 5900	6850 - 7500	7210	115 - 165	130 - 195	160.33
May	5100 - 5600	6950-10000	8597	5350 - 5850	7600 - 10000	9252	110 - 180	180 - 260	211.03
June	4526 - 5300	7600 - 9000	8312	5300 - 6000	8300 - 10000	8751	110 - 165	170 - 250	206.32
July	5100 - 5300	8000 - 10500	9538	5200 - 7200	9600 - 11200	10369	118 - 180	200 - 285	229.18
August	4526 - 6200	8900 - 9800	9322	5800 - 6950	9100 - 10500	9624	106 - 175	180 - 280	224.02
September	5400 - 7200	9050 - 9600	9317	6800 - 7800	9000 - 10200	9529	130 - 200	180 - 280	223.26
October	5200 - 7102	8300 - 9300	8943	6350 - 7600	8600 - 9800	9145	135 - 200	175 - 260	217.91
November	5200 - 7000	8300 - 9200	8703	6800 - 7500	8300 - 9300	8867	133 - 195	165 - 255	213.38
December	6100 - 7000	7200 - 8900	8019	6600 - 7220	7600 - 9100	8351	120 - 180	160 - 250	209.57
<b>Overall</b>	<b>4526 - 7200</b>	<b>5200 - 10500</b>	<b>7999</b>	<b>5100 - 7800</b>	<b>5500 - 11200</b>	<b>8405</b>	<b>106 - 200</b>	<b>115 - 285</b>	<b>196.16</b>

Source: AFA-Sugar Directorate

## 2.2.5. Sugar Imports

### Sugar imports

In the period under review, a total of 608,178 MT of both brown/mill white and white refined sugar was imported compared to 320,708 MT that was imported in 2022 translating to a significant increase of 90 percent. The increase is ascribed to increasing domestic sugar demand amid sharp decline in sugarcane production, leading to very low local sugar production. To mitigate sugar shortage and cap rising sugar prices, the Government allowed importation of duty free sugar from the world market. The sugar imports comprised of 162,516 MT of white refined sugar and 445,662 MT of Brown/Mill White valued at KES 13,716,157,673 and KES 39,545,855,824 respectively. For more details, refer to Table 23.

**Table 23: Sugar Imports by Type and Values from 2017-2023**

Year	Mill white/brown sugar			White refined sugar			Total imports		
	Quantity (MT)	C.I.F value (KES)	C.I.F Unit value (KES/MT)	Quantity (MT)	C.I.F value (KES)	C.I.F Unit value (KES/MT)	Quantity (MT)	C.I.F value (KES)	C.I.F Unit value (KES/MT)
2017	829,871	46,283,240,394	55,772	159,748	10,305,883,498	64,513	989,619	56,589,123,893	57,183
2018	122,121	7,574,813,604	62,027	162,048	8,075,860,121	49,836	284,169	15,650,673,725	55,075
2019	285,093	15,913,322,848	55,818	173,538	7,887,642,173	45,452	458,631	23,800,965,021	51,896
2020	309,408	17,947,527,049	58,006	132,985	6,519,788,209	49,027	442,393	24,467,315,258	55,307
2021	252,180	16,004,911,150	63,466	174,154	9,855,287,039	56,589	426,334	25,860,198,189	60,657
2022	133,139	10,207,443,124	76,668	187,569	13,716,157,673	73,126	320,708	23,923,600,797	74,596
2023	445,662	39,545,855,824	88,735	162,516	14,914,235,025	91,771	608,178	54,460,090,849	89,546

Source: AFA-Sugar Directorate

The total value for 608,178.19 MT of imported sugar in 2023 was KES 54.46 billion, representing an increase of KES 30.54 billion from KES 23.92 billion that was recorded in 2022. Similarly, the value of 472,773 MT of locally produced sugar in the period under review was KES 75.63 billion. Refer to Table 23 and 24 showing the trend in both sugar production and import for more information.

**Table 24: Sugar Production, Imports and Values from 2017-2023**

YEAR	Local Sugar			Sugar Imports			Total Value KES (local & imports) in billion
	Sugar production (MT)	Ex-Factory sugar price (KES/MT) *	Sugar Value (KES) billion	Sugar Imports (MT)	CIF	Sugar Value in billions	
2017	376,111	84,168	31.66	989,619	57,183	56.59	88.25
2018	491,097	74,684	36.68	284,169	55,075	15.65	52.33
2019	440,935	70,241	30.97	458,631	51,896	23.8	54.77
2020	603,788	73,601	44.44	442,393	55,307	24.47	68.91
2021	700,241	80,154	56.12	426,334	60,657	25.86	81.98
2022	796,554	113,380	90.31	320,708	74,596	23.92	114.23
2023	472,773	159,980	75.63	608,178	89,546	54.46	130.09

\* Average sugar prices excluding VAT and Levies

Source: AFA-Sugar Directorate

### 2.2.6. Sugar and Sugar by-product Exports

The quantity of sugar exported to various destinations in 2023 increased by 115.065 MT to 474.465 MT from 359.41 MT that was exported in 2022. Rwanda was the topmost destination for brown/white mill sugar at 241.33 MT. For more information, refer to Table 25 below.



Table 25: Sugar and Sugar by-product Exports 2018-2023 by Type and Destination

Sugar and Sugar by-Products	Country of Destination	2018	2019	2020	2021	2022	2023
i) Sugar By-Products i.e. Jaggery & Molasses (MT)	Aircraft & Ship stores	0.36	0.3	0.17	0.24	0.46	2.345
	South Sudan	8.33	0.05	0.05	0.04	-	-
	Rwanda	11.28	2.18		3.71	3.91	-
	EPZ	-	5	-	-	-	-
	Sudan	0.05	-	-	-	-	-
	Australia	-	0.25	-	-	-	-
	Mali	-	-	-	-	0.01	-
	Democratic Republic of Congo	-	-	-	0.01	-	-
	Great Britain	0.3	-	-	-	-	-
	South Africa	-	-	-	-	-	0.02
	<b>Total</b>		<b>20.31</b>	<b>7.78</b>	<b>0.21</b>	<b>4.01</b>	<b>4.38</b>
ii) Brown / Mill White Sugar (MT)	Aircraft & Ship Stores	1.1	1.37	1.36	0.68	1.39	5.03
	South Sudan	13.7	7.95	4.8	2.56	6.02	116.7
	Democratic Republic of Congo	-	0.95	3	0.07	29.57	0.59
	Uganda	25	66.03	53.84	50.28	93.43	103.97
	Rwanda	-	82.9	133.97	127.71	227.5	241.33
	Tanzania	-	-	3.33	-	-	-
	Burundi	-	-	0.57	-	0.58	1.67
	United Arab Emirates	-	-	0.03	-	-	-
	South Africa	-	-	-	0.11	0.19	0.11
	Mozambique	-	-	-	0.06	-	-
	Algeria	-	-	-	0.03	-	-
	Sweden	-	0.06	-	-	-	-
	Singapore	-	-	-	-	0.11	3.14
	Indonesia	-	-	-	0.03	0.04	0.12
	Japan	-	-	-	0.05	-	-
	India	-	-	-	0.02	0.05	0.03
	Niger	-	-	-	0.08	0.29	-
	Ethiopia	-	-	-	-	0.02	-
	Germany	-	-	-	0.55	0.02	0.02
	Botswana	-	-	-	0.03	-	-
	China	-	-	-	-	0.04	0.09
	Cameroon	-	-	-	-	-	0.03
	CAR	-	-	-	-	-	0.01
	Belgium	-	-	-	-	-	0.008
USA	-	-	-	-	-	0.6	
<b>Total</b>		<b>39.8</b>	<b>159.3</b>	<b>200.9</b>	<b>182.25</b>	<b>359.2</b>	<b>473.45</b>

Sugar and Sugar by-Products	Country of Destination	2018	2019	2020	2021	2022	2023
iii) Refined White Sugar (MT)	Aircraft & Ship Stores	-	0.2	0.1	0.1	-	-
	Tanzania	1,847.60	601.9	-	250.8	-	-
	Germany	-	-	-	-	-	0.008
	Belgium	-	-	-	-	-	1.009
	Uganda	39.1	12.1	-	506.3	-	-
	EPZ	-	-	160	-	-	-
	Rwanda	39.1	-	14.1	254.4	-	-
	Oman	-	-	-	1.8	-	-
	Congo, Brazzaville	-	-	-	-	-	-
	South Sudan	0	1.8	-	-	0.2	-
	Djibouti	-	-	-	-	-	-
	<b>Total</b>		<b>1,925.85</b>	<b>615.9</b>	<b>174.2</b>	<b>1,013.38</b>	<b>0.19</b>
<b>Total Sugar Exports (ii) + (iii)</b>		<b>1,965.65</b>	<b>775.2</b>	<b>375.1</b>	<b>1,195.62</b>	<b>359.4</b>	<b>474.47</b>

Source: AFA-Sugar Directorate

### 2.3. Challenges and Proposed Interventions

Table 26: Challenges and Proposed Interventions in the Sugar Sub-Sector

Challenges	Proposed Interventions
1. Decline in sugarcane yield per hectare	<ul style="list-style-type: none"> <li>To ensure adequate quality seed cane is availed to farmers during planting by working closely and supporting SRI to execute this role</li> <li>To ensure fertilizers for planting and top-dressing are available by collaborating with the Ministry of Agriculture and Livestock Development for subsidized fertilizer.</li> </ul>
2. Slow adoption and propagation of early maturing varieties	<ul style="list-style-type: none"> <li>To sensitize farmers on the importance of having early maturing varieties and ensure availability of enough planting material for the uptake</li> </ul>
3. Delayed payment of cane proceeds to farmers	<ul style="list-style-type: none"> <li>Adoption of prompt payment to farmers proceeds for cane deliveries by all millers to facilitate early maintenance of subsequent ratoons</li> </ul>

# MIRAA, PYRETHRUM AND BIXA

- AGRICULTURE PERFORMANCE
- MARKET PERFORMANCE

## CHAPTER 3

## CHAPTER 3: MIRAA, PYRETHRUM AND BIXA

### Introduction

MPOICD is mandated to promote, regulate and develop miraa, pyrethrum and bixa value chains in the country.



### 3.1. Pyrethrum

Kenya, with its rich history of pyrethrum cultivation since 1928, has witnessed the sub-sector's enduring relevance over the years. Pyrethrum is grown in 18 counties namely: Meru, Nyan-darua, Nyeri, Kiambu, Trans Nzoia, Uasin Gishu, Bungoma, West Pokot, Elgeyo Marakwet, Nandi, Baringo, Laikipia, Nakuru, Narok, Kericho, Bomet, Kisii and Nyamira. The natural pyrethrum products, unique in the pest control industry, has an increasing global demand. Kenya held the position of the world's leading producer of natural pyrethrum from the 1960s until the late 1990s, contributing over 70 percent to the global supply. In 1992, the country achieved a remarkable milestone, reaching a production of 18,000 MT, earning a foreign exchange of about KES 2.1 billion. Capitalizing on its potential, Kenya has the capacity to produce and process over 20,000 MT of pyrethrum flowers which translates to substantial foreign exchange earnings.

### 3.1.1. Agriculture Performance

#### 3.1.1.1. Area under Pyrethrum Crop

In the year 2023, the area under pyrethrum was 9,362 acres, indicating a notable growth of 134 percent compared to 2022. The increase could be attributed to purchase and distribution of planting materials to growers and the Directorate carried out capacity building of County extension officers in order to improve service delivery to growers. For more details, refer to Table 27.

*Table 27: Area under Pyrethrum by County in acres- (2019-2023).*

County	2019	2020	2021	2022	2023
Nakuru	2,927	1,722	914	1,197	3,884
West Pokot	2,200	2,200	120	708	1,909
Bomet	60	60	209	359	865
Nyandarua	511	539	1,974	783	812
Kericho	116	112	128	193	741
Elgeyo Marakwet	678	1,250	34	25	494
Laikipia	65	65	32	42	188
Kiambu	6	6	100	102	143
Nyamira	23	23	71	180	71
Baringo	62	68	92	31	55
Nyeri	33	10	5	245	45
Meru	21	9	7	66	44
Kisii	660	660	14	29	62
Narok	209	200	40	15	36
Uasin Gishu	678	809	17	20	11
Nandi	5	2	6	2	2
Trans Nzoia	14	12	3	1	0
Bungoma	12	12	11	2	0
<b>Total</b>	<b>8,280</b>	<b>7,759</b>	<b>3,777</b>	<b>4,000</b>	<b>9,362</b>

*Source: AFA Miraa Pyrethrum and Other Industrial Crops Directorate*

#### 3.1.1.2. Dry Pyrethrum Flowers Production

Production for the year 2023 was 1,680 MT dry pyrethrum flowers which were delivered for processing. This accounts for an increase of 78 percent compared to the previous year's production of 942 MT. The increase in production is attributed to the expansion of acreage due to Government's support in implementing a seedling purchase and distribution program, capacity building on agronomic practices, improved post-harvest handling amongst other interventions by the value chain players. These combined efforts aimed to boost the supply and ensure a steady flow of dry flowers to meet the growing demand and installed processing capacities for the pyrethrum processors. For more information refer to Table 28 and Table 29.

**Table 28: Pyrethrum Flower Production in Kilograms for 2019-2023**

County	2019	2020	2021	2022	2023
Nakuru	147,319	194,539	261,320	452,430	772,035
Bomet	3,523	5,152	32,603	112,566	319,001
Nyandarua	7,801	35,250	121,901	204,939	272,055
West Pokot	110,728	20,001	44,980	61,604	113,050
Kericho	5,637	669	15,176	49,465	88,398
Elgeyo Marakwet	1,955	895	1,078	4,010	36,188
Meru	2,517	2,410	622	10,122	27,477
Nyeri	3,272	4,341	1,296	11,753	13,742
Baringo	3,272	684	1,750	3,813	10,551
Uasin Gishu	2,013	5,256	4,218	4,349	8,501
Narok	2,677	1,197	1,297	3,215	7,603
Kisii	3,523	1,203	1,540	3,067	5,697
Laikipia	5,033	1,385	10,123	17,836	2,530
Nyamira	705	891	1,382	1,872	2,205
Kiambu	755	1,191	701	688	664
Nandi	1,207	82	162	83	304
Bungoma	352	9,750	401	60	0
Trans Nzoia	604	18	14	0	0
<b>Total</b>	<b>302,893</b>	<b>284,914</b>	<b>500,564</b>	<b>941,872</b>	<b>1,680,001</b>

Source: AFA Miraa Pyrethrum and Other Industrial Crops Directorate

**Table 29: Pyrethrum Production and Value 2019-2023**

Pyrethrum Production and Value						
Year		2019	2020	2021	2022	2023
Area (Acres)		8,280	7,759	3,777	4,000	9,362
Production(dry flowers)	MT	303	284.9	505.5	942	1,680
Average Price	KES/Kg	217.7	200	213	250	305
Value	KES Million	68.5	57	106.7	235.4	512.4

Source: AFA Miraa Pyrethrum and Other Industrial Crops Directorate

### 3.1.2. Market Performance

The main product obtained from pyrethrum processing is Pyrethrum Refined Extract (PRE). Others include Crude extract and Pymarc. Pyrethrum extract is mainly used in manufacture of insecticides for use in and around homes to control cockroaches, mosquitoes, houseflies and other insects. Pyrethrum products are also used against insects and arthropod pests in food handling and storage facilities because of its low mammalian toxicity, animal pens and head lice control.

The major export markets for Kenya Pyrethrum is Europe, Asia, North America, and Africa, particularly South Africa. Historically about 98 percent of the total, has been destined for international markets, while only 2 percent has been utilized locally for formulation of pyrethrum based products. In the recent past, the Directorate in collaboration with the formulators carried out promotional activities on pyrethrum formulated products and awareness creation on environmental friendly pesticides leading to increased local consumption. In the year under review, a total of 30.3 MT of extract was produced of which 30 percent was consumed locally. For more details, refer to Table 30.

*Table 30: Pyrethrum Extract 2019-2023 (Volume, Price and Value)*

Pyrethrum Extract						
	Unit	2019	2020	2021	2022	2023
<b>Production</b>	MT	7.4	5.7	11.5	22.15	30.3
<b>Average Price</b>	KES/Kg	24,999	23,151	25,000	27,000	37,500
<b>Value</b>	KES millions	185.3	131.9	287.5	598.05	1,136.2

*Source: AFA Miraa Pyrethrum and Other Industrial Crops Directorate*

With this evolving trend, it is anticipated that the domestic utilization of PRE will continue to grow, fostering economic opportunities and driving further advancements in local market. Furthermore, there is consistent demand for natural pesticides in the local and international markets, positioning it as a valuable asset for Kenya's export industry.

In the period under review, there was an increase in production and value of pyrethrum extract. The volume of production increased by 37 percent from 22.15 MT in 2022 to 30.3 MT in 2023. The year 2023 reported a significant rise in prices to KES 37,500 per kilogram compared to KES 27,000 in the year 2022, attributed to the weakening of the Kenya Shilling against the US dollar.

The major export destinations for Kenya refined pyrethrum extract were Belgium, Spain and Italy. Refer to Table 31 and Table 32, for more details

**Table 31: Pyrethrum Refined Extract Export in Kgs 2023**

Destination	2023	Market Share %
Belgium	8,750	42
Spain	5,584	27
Italy	3,200	15
South Korea	1,175	6
Mexico	975	5
USA	600	2
South Africa	575	2
Germany	200	1
<b>Total</b>	<b>21,059</b>	<b>100</b>

Source: AFA Miraa, Pyrethrum and Other Industrial Crops Directorate

**Table 32: Pymarc Export Quantities in Kgs for 2022 and 2023**

Destination	2022	2023
Japan	98,000	46000
Belgium	21,000	0
<b>Total</b>	<b>119,000</b>	<b>46,000</b>

Source: AFA Miraa, Pyrethrum and Other Industrial Crops Directorate

Given the over-reliance on Europe as the major market for Kenya's pyrethrum, it becomes imperative for Kenya to diversify and expand its international market base. By tapping into untapped markets and forging strategic partnerships in Asia, Africa, North America and other market destinations, Kenya can reduce its dependency on a single market and potentially unlock new opportunities for pyrethrum exports through market registration. Such expansion efforts will not only broaden the market reach but also enhance the resilience and sustainability of Kenya's pyrethrum industry.



### 3.2. Bixa

In Kenya Bixa is grown in Lamu, Kwale, Tana River, Elgeyo Marakwet, Baringo, Makueni, Homa Bay and Kilifi. Other potential counties include Embu, Kitui, Narok, Wajir, Nakuru, Bomet, Machakos, Nyandarua, Vihiga, Nyamira and Trans Nzoia. The total area under the crop is 3,341 acres. Table 33 illustrates area distribution per county.

*Table 33: Area under the Crop 2023 in acres*

County	Grower	Acreage
Lamu	775	1,836.40
Kwale	1,282	1,461
Tana River	14	22.0
Elgeyo Marakwet	3	5.5
Baringo	6	5
Makueni	2	4
Homa Bay	7	3.80
Kilifi	3	3.75
<b>Total</b>	<b>2,092</b>	<b>3,341.45</b>

Source: KIAMIS

#### 3.2.1. Agriculture Performance

In the year 2023, a total of 2,033,580 Kgs of Bixa seeds were collected by the Bixa processors. This represents 53 percent increase compared to the volume produced in the year 2022. For more details, refer to Table 34 and Table 35.

**Table 34: Bixa Seeds Collected for 2022-2023 in Kgs**

Month	2022	2023
January	26,000	165,000
February	40,000	211,200
March	82,000	274,678
April	90,000	252,858
May	83,000	181,629
June	0	217,375
July	0	7,490
August	0	100,652
September	60,000	76,413
October	500,000	189,225
November	328,301	208,560
December	119,645	148,500
<b>Total</b>	<b>1,328,946</b>	<b>2,033,580</b>

Source: AFA - Miraa, Pyrethrum and Other Industrial Crops Directorate

**Table 35: Norbixin Produced 2022-2023 in Kgs.**

Month	2022	2023
January	7,000	5,000
February	1,200	6,000
March	2,500	9,100
April	4,000	6,700
May	3,500	7,000
June	0	6,400
July	0	0
August	0	1,200
September	0	5,000
October	5,000	8,000
November	8,000	9,000
December	7,500	6,500
<b>Total</b>	<b>38,700.00</b>	<b>69,900</b>

Source: AFA Miraa Pyrethrum and Other Industrial Crops Directorate

### 3.2.2. Market Performance

Bixa seeds undergo processing to extract the colouring pigment using different methods such as fermentation, direct extraction, use of organic solvents and modern supercritical fluid extraction. Norbixin and bixin are the two major products produced during Bixa seed processing.

### 3.2.2.1. Norbixin

In the year 2023 a total of 65,100 Kgs of Norbixin was exported to United States of America, Peru, United Kingdom, Japan, Brazil and Ireland. This recorded a 32 percent increase in quantity exported compared to 2022 which is attributed to a higher demand for the product. For more details, refer to Table 36.

**Table 36: Norbixin exports in Kgs**

Destination	2022	2023
USA	23000	21000
UK	8000	14000
Peru	7000	12500
Brazil	7500	12000
Ireland	3000	5000
Japan	1000	600
<b>Total</b>	<b>49,500</b>	<b>65,100</b>

Source: AFA Miraa Pyrethrum and Other Industrial Crops Directorate

### 3.2.2.2. Bixin

Bixin is an Apo carotenoid found in the seeds of the achiote tree (*Bixa orellana*) from which it derives its name. It is commonly extracted from the seeds to form annatto, a natural food coloring, containing about 5 percent pigments of which 70–80 percent are bixin. In the year 2023, a total of 16,000 Kg of bixin was exported to Brazil. For more details, refer to Table 37.

**Table 37: Bixin Export in Kilograms for 2023**

Month	2023
January	0
February	4,000
March	0
April	4,000
May	0
June	0
July	0
August	0
September	4,000
October	0
November	0
December	4,000
<b>Total</b>	<b>16,000</b>

Source: AFA - Miraa Pyrethrum and Other Industrial Crops Directorate



### 3.3. Miraa

Miraa is a cash crop in Kenya, mainly grown in Meru, Embu, Tharaka Nithi and Kirinyaga counties. It's also recognized as an income-generating venture in other counties such as Marsabit, Machakos, Nyeri, Makueni, Laikipia, Kajiado, Kitui, Murang'a, Isiolo, Nakuru, Kiambu and Taita Taveta. Its cultivation and trade have greatly contributed to the country's economy and development, through earnings of foreign exchange. The total acreage under Miraa is 55,281 acres. Meru and Embu accounts for 88.4 percent of the total acreage.

#### 3.3.1. Agriculture Performance

The current annual production of Miraa in Kenya is estimated to be 32,000 MT, with a value of approximately 13.1 billion Kenyan shillings. A significant portion of the Miraa produced, about 80 percent, is consumed locally, reflecting its importance within the local economy. Somalia serves as the primary export market, accounting for 99 percent of the total export volume. For more details, refer to Table 38.

*Table 38: Area under Miraa and no. of growers per county*

County	No. of Growers	Acreage
Meru	42,123	37,925.76
Embu	14,656	10,940.72
Kirinyaga	3,927	3,007.63
Marsabit	889	969.98
Machakos	891	625.15
Tharaka-Nithi	1,022	531.11
Taita taveta	305	348.02

County	Growers	Acreage
Kajiado	135	209.04
Kitui	241	194.01
Laikipia	203	182.65
Makueni	115	148.64
Muranga	82	31.30
Nyeri	52	28.55
Migori	37	23.5
Nakuru	25	21.49
Isiolo	12	16.50
Kiambu	27	14.16
<b>Total</b>	<b>64,742</b>	<b>55,281.76</b>

Source: KIAMIS

### 3.3.2. Market Performance

#### 3.3.2.1. Miraa exports for 2022-2023

In the year 2023 a total of 6,267,781 Kgs of Miraa was exported to Somalia. This represents 50 percent increase compared to 3,132,802 Kgs exported in 2022. In January to June 2022, miraa exports to Somalia was suspended. Notably in 2023, exports quantities declined from the month of August to December due to stiff competition from Ethiopia. For more details, refer to Table 39.

Table 39: Miraa Exports

Month	Quantity (Kgs)	
	2022	2023
January	0	812,871
February	0	565,915
March	0	600,876
April	0	573,285
May	0	653,798
June	0	571,736
July	118,600	599,094
August	571,462	413,700
September	586,081	417,851
October	553,480	391,682
November	530,930	328,554
December	772,249	338,419
<b>Total</b>	<b>3,132,802</b>	<b>6,267,781</b>

Source: AFA Miraa Pyrethrum and Other Industrial Crops Directorate

# **NUTS AND OIL CROPS**

- AGRICULTURE PERFORMANCE
- MARKET PERFORMANCE

## **CHAPTER 4**

## CHAPTER 4 : NUTS AND OIL CROPS

### Introduction

The nuts and oil crops sub-sector in Kenya plays a crucial role in the country's agricultural sector. It contributes significantly to the economy by providing income to farmers, supporting rural livelihoods and boosting the country's foreign exchange earnings. This sub-sector covers the cultivation, processing, and marketing of various nuts and oil crops, each with its own unique value chain. The Government has identified eight priority nuts and oils BeTA crops based on their production potential and share which has significant potential for improving food security and manufacturing through creating jobs. The BeTA crops identified are macadamia, cashew nuts, coconut, canola, soya beans, sunflower, sesame and groundnuts which the Authority in collaboration with the various county Governments are focused on promoting increased production.



## **4.1. Coconut**

### **4.1.1. Agriculture Performance**

Coconut is a significant crop in Kenya's coastal communities. It is the main cash crop in the Kenyan Coastal belt (Kilifi, Kwale, Lamu, Tana River, Mombasa and Taita Taveta). Additional developing counties are Siaya, Tharaka Nithi, Meru, and Busia. The area under coconut farming increased to 73,991 Ha in 2023 from 73,286 Ha in 2022, a slight 1 percent increase. Coconut production increased significantly from 71,722 MT valued at KES 8.2 billion in 2022 to 81,667 MT valued at KES 9.4 billion in 2023. The increase was primarily due to increased rainfall at the end of 2022, which resulted in a relatively small boost in production. Notably in 2023, most coconut-growing areas had adequate and evenly distributed rainfall throughout the year, contributing to an overall increase in production.

### **4.1.2. Market Performance**

The coconut tree yields several commonly traded products, including mature coconuts, toddy (coconut wine), tender coconut water, makuti (thatched roofing), and brooms. In 2023, the farm gate price per mature coconut ranged from KES 30 to KES 50, while the market prices varied between KES 40 and KES 100, depending on the size. The increase was attributed to more uptake of tender coconut water due to its health benefits. For more details, refer to Table 40, 41 and 42.

**Table 40: Area under Coconut, Production and Value by County in 2022-2023**

County	Area (Ha)		Volume (MT)		Value (KES) millions	
	2022	2023	2022	2023	2022	2023
Kilifi	32,602	32,815	30,126	33,138	3,623.68	3,985.98
Kwale	29,455	29,695	32,599	39,119	3,679.08	4,414.92
Lamu	10,038	10,178	6,142	6,449	614.24	644.94
Tana River	951	1,015	792	838	79.08	83.67
Mombasa	137	145	1,434	1463	175.68	179.40
Taita Taveta	103	143	629	660	62.63	65.72
<b>Total</b>	<b>73,286</b>	<b>73,991</b>	<b>71,722</b>	<b>81,667</b>	<b>8,234.39</b>	<b>9,374.63</b>

Source: AFA - Nuts and Oil Crops Directorate

**Table 41: Area under Coconut and Production by County from 2019-2023**

County	Area (Ha)					Production (MT)				
	2019	2020	2021	2022	2023	2019	2020	2021	2022	2023
Kilifi	41,432	41,470	35,664	32,602	32,815	52,853	52,853	39,640	30,126	33,138
Kwale	31,358	31,384	30,873	29,455	29,695	46,227	46,227	37,906	32,599	39,119
Lamu	10,713	10,722	9,864	10,038	10,178	6,771	6,894	5,584	6,142	6,449
Tana River	1,066	1,070	925	951	1,015	822	822	707	792	838
Mombasa	156	158	145	137	145	2,344	2,344	1,992	1,434	1463
Taita Taveta	99	102	94	103	142	873	873	725	629	660
<b>Total</b>	<b>84,824</b>	<b>84,906</b>	<b>77,565</b>	<b>73,286</b>	<b>73,991</b>	<b>109,890</b>	<b>110,013</b>	<b>86,554</b>	<b>71,722</b>	<b>81,667</b>

Source: AFA - Nuts and Oil Crops Directorate

**Table 42: Value of Coconut in 2017-2023**

County	Value (KES) million				
	2019	2020	2021	2022	2023
Kilifi	2,219.80	2,384.00	2,378.40	3623.68	3,985.98
Kwale	2,126.40	2,139.00	2,426.00	3679.08	4,414.92
Lamu	304.7	322	446.7	614.24	644.94
Tana River	37	35.3	56.6	79.08	83.67
Mombasa	103.1	122	159.4	175.68	179.40
Taita Taveta	37.5	36.1	58	62.63	65.72
<b>Total</b>	<b>4,829</b>	<b>5,038</b>	<b>5,525</b>	<b>8,234</b>	<b>9,374.63</b>

Source: AFA - Nuts and Oil Crops Directorate



## **4.2. Cashew nut**

Cashew nut crop is widely grown in coastal regions, specifically in Mombasa, Kwale, Kilifi, Tana River, Lamu and Taita Taveta Counties. Cashew is one of the region's oldest cash crops, providing livelihoods for the majority of residents. The crop can also be grown in ASAL areas due to its tolerance nature. Tharaka Nithi, Meru, Embu, Makueni, Busia and Siaya are among the other emerging counties with high potential.

### **4.2.1. Agriculture Performance**

In the year under review the area under the crop was estimated at 24,437 Ha with an annual production of 8,997 MT valued at KES 451.62 million. The increase in production was majorly attributed to initiatives by various institutions such as KALRO and AFA-NOCD to revitalize the cashew nut sector by distributing certified high-quality cashew seedlings to farmers in the production zones.

### **4.2.2. Market Performance**

In the year under review, cashew nut prices ranged from KES 35 to KES 50 per kilogram at the farm gate and from KES 60 to KES 100 per kilogram at the factory gate. These prices have remained stagnant over the past two years due to limited competition among processors. In 2023, a total of 427.6 MT of cashew nuts valued at KES 326 million were exported to Europe and Asia. The average market price was USD 5 per kilogram. For more details, refer to Table 43, 44 and 45.

**Table 43: Area under Cashew nut, Production and Value by County in 2021-2023**

County	Area (Ha)			Quantity (MT)			Values (KES) million		
	2021	2022	2023	2021	2022	2023	2021	2022	2023
Kilifi	9,595	10,254	10,315	3,387	3,505	3,525	162.59	168.25	169.21
Kwale	7,135	6,263	6,835	2,644	2,089	2,280	126.9	100.25	109.42
Lamu	5,559	5,622	5,794	2,738	2,327	2,398	150.6	128.01	132.00
Taita Taveta	428	550	598	177	206	223	7.96	9.25	10.01
Tana River	186	116	432	112	128	480	6.15	7.05	26.44
Others	255	255	463	63	77	91	3.15	3.84	4.54
<b>Total</b>	<b>23,158</b>	<b>23,060</b>	<b>24,437</b>	<b>9,121</b>	<b>8,332</b>	<b>8,997</b>	<b>457.35</b>	<b>416.6</b>	<b>451.62</b>

Source: AFA - Nuts and Oil Crops Directorate

**Table 44: Area under Cashew nut and Production from 2019-2023**

County	Area (Ha)					Production (MT)				
	2019	2020	2021	2022	2023	2019	2020	2021	2022	2023
Kilifi	9,460	9,445	9,595	10,254	10,315	4,779	4,704	3,387	3505	3,525
Kwale	7,020	7,025	7,135	6,263	6,835	3,759	3,672	2,644	2089	2,280
Lamu	5,438	5,450	5,559	5,622	5,794	3,754	3,803	2,738	2327	2,398
Taita Taveta	430	428	428	550	598	259	246	177	206	223
Tana River	185	186	186	116	432	174	155	112	128	480
Others	153	155	255	255	463	77	88	63	77	91
<b>Total</b>	<b>22,686</b>	<b>22,689</b>	<b>23,158</b>	<b>23,060</b>	<b>24,437</b>	<b>12,802</b>	<b>12,668</b>	<b>9,121</b>	<b>8,332</b>	<b>8,997</b>

Source: AFA - Nuts and Oil Crops Directorate

**Table 45: Value of Cashew nut from 2018-2023**

County	Values (KES) million					
	2018	2019	2020	2021	2022	2023
Kilifi	244.62	244.36	211.69	162.59	168.25	169.21
Kwale	216.83	292.81	165.24	126.90	100.25	109.42
Lamu	25.28	18.62	190.14	150.60	128.01	132.00
Tana River	10.78	15.78	6.22	6.15	9.25	10.01
Taita Taveta	15.27	5.76	9.58	7.96	7.05	26.44
Others	4.90	5.76	4.38	3.15	3.84	4.54
<b>Total</b>	<b>517.68</b>	<b>583.09</b>	<b>587.25</b>	<b>457.35</b>	<b>416.65</b>	<b>451.62</b>

Source: AFA - Nuts and Oil Crops Directorate



### **4.3. Macadamia**

Macadamia trees are largely grown by smallholder farmers in Kenya's highlands, specifically in Murang'a, Nyeri, Kiambu, Embu, Meru, Machakos, Makeni and Taita Taveta counties. The Rift Valley and Western regions farmers have embraced the macadamia farming. In recent years, Kenya has seen a growth in macadamia processing facilities, which add value to the nuts before export.

#### **4.3.1. Agriculture Performance**

In the year under review the area under macadamia crop was estimated at 8,826 Ha, 1 percent increase from 8,747 Ha reported in 2022. The total production increased by 8.5 percent from 40,903 MT to 44,364 MT valued at KES 2.661 billion. This is attributed to increasing harvests in the non-traditional growing regions. Increased yields were also attributed to delayed harvest as compared to previous years when there was high demand resulting in immature harvesting. Despite the growing potential for macadamia nuts, the industry grapples with various challenges. These include price variations on the international market, output irregularities, premature harvesting and insect damage. Currently, the industry is dealing with a commodities price super-cycle, with global and local macadamia nut prices at their lowest point in almost a decade. In response to this decline, the government has temporarily lifted the ban on the export of raw macadamia nuts for a period of one year, aiming to support farmers in mitigating the effects of low prices. For more details, refer to Table 46, 47 and 48.

**Table 46: Area under Macadamia, Production and Value by County in 2022 and 2023**

County	Area (Ha)		Volumes (MT)		Values (KES) million	
	2022	2023	2022	2023	2022	2023
Murang'a	2,352	2,355	10,963	11,108	602.9	666.48
Meru	1,382	1,390	6,664	7,530	466.4	451.82
Embu	1,099	1,101	4,723	5,337	330.6	320.22
Kiambu	992	994	4,759	5,105	285.5	306.30
Kirinyaga	877	879	4,076	4,301	224.1	258.06
Nyeri	488	487	2,314	2,615	150.4	156.89
Tharaka Nithi	272	281	1,469	1,660	102.8	99.60
Machakos	153	154	847	957	50.8	57.43
Nyandarua	142	143	767	867	42.1	52.00
Baringo	89	92	504	570	30.2	34.17
Busia	52	59	5	6	275	0.34
Taita Taveta	78	79	453	512	27.1	30.71
Trans Nzoia	490	506	2,839	3,208	170.3	192.48
Elgeyo Marakwet	56	57	52	59	3.3	3.53
Makueni	46	47	46	52	2.9	3.12
Uasin Gishu	56	63	50	57	3	3.39
Others	123	139	372	420	20.5	25.22
<b>Total</b>	<b>8,747</b>	<b>8,826</b>	<b>40,903</b>	<b>44,364</b>	<b>2,788</b>	<b>2,661.76</b>

Source: AFA - Nuts and Oil Crops Directorate

**Table 47: Area under Macadamia and Production from 2019 – 2023**

County	Area (Ha)					Production (MT)				
	2019	2020	2021	2022	2023	2019	2020	2021	2022	2023
Murang'a	1,891	1,892	1,893	2,352	2,355	11,057	10,823	11,546	10,963	11,108
Meru	1,143	1,145	1,146	1,382	1,390	6,711	6,614	6,992	6,664	7,530
Embu	1,138	1,139	736	1,099	1,101	6,802	6,801	4,487	4,723	5,337
Kiambu	828	830	833	992	994	4,981	4,711	5,080	4,759	5,105
Kirinyaga	701	702	705	877	879	3,960	3,912	4,300	4,076	4,301
Nyeri	406	407	409	488	487	2,068	2,011	2,497	2,314	2,615
Tharaka Nithi	240	242	244	272	281	1,413	1,390	1,487	1,469	1,660
Machakos	136	136	139	153	154	810	821	850	847	957
Nyandarua	130	132	133	142	143	726	722	810	767	867
Baringo	82	83	83	89	92	481	481	509	504	570
Busia	74	75	46	52	59	1	1	5	5	6
Taita Taveta	72	73	74	78	79	429	446	454	453	512
Trans Nzoia	49	50	490	490	506	56	59	2,988	2,839	3,208

County	Area (Ha)					Production (MT)				
	2019	2020	2021	2022	2023	2019	2020	2021	2022	2023
Elgeyo Marakwet	43	44	44	56	57	39	41	68	52	59
Makueni	41	41	43	46	47	42	45	65	46	52
Uasin Gishu	37	38	45	56	63	37	44	70	50	57
Others	109	114	117	123	139	202	211	354	372	420
<b>Total</b>	<b>7,120</b>	<b>7,143</b>	<b>7,180</b>	<b>8,747</b>	<b>8,826</b>	<b>39,815</b>	<b>39,133</b>	<b>42,562</b>	<b>40,903</b>	<b>44,364</b>

Source: AFA - Nuts and Oil Crops Directorate

Table 48: Value of Macadamia from 2019-2023 by County

County	Values (KES) million				
	2019	2020	2021	2022	2023
Murang'a	1,548	693	774	602.9	666.5
Meru	973	390	489	466.4	451.8
Embu	884	343	292	330.6	320.2
Kiambu	757	306	345	285.5	306.3
Kirinyaga	594	215	279	224.1	258.1
Nyeri	285	101	157	150.4	156.9
Tharaka Nithi	203	74	97	102.8	99.6
Machakos	109	48	51	50.8	57.4
Nyandarua	91	35	41	42.1	52.0
Baringo	67	22	31	30.2	34.2
Taita Taveta	69	24	30	27.1	0.3
Busia	0.091	0.054	0.297	0.3	30.7
Trans Nzoia	7	3	167	170.3	192.5
Elgeyo Marakwet	5	2	4	3.3	3.5
Makueni	6	2	4	2.9	3.1
Uasin Gishu	5	2	4	3	3.4
Others	27	12	21	20.5	25.2
<b>Total</b>	<b>5,631.59</b>	<b>2,272.05</b>	<b>2,786.30</b>	<b>2,513</b>	<b>2,661.8</b>

Source: AFA-Nuts and Oil Crops Directorate

### 4.3.2. Market Performance

In the year under review, the average farm gate price for nuts-in-shell macadamia nuts was KES 57. The low price was attributed to low demand for macadamia kernels from the major destination markets especially the USA. The government issued a directive in November 2023 allowing traders to export the nuts-in-shell aimed at increasing farm gate prices by opening up new international markets.

In 2023, a total of 7,800.3 MT of macadamia kernels valued at KES 5.73 billion, were exported to European and US markets as shown in Table 80. On the global market, the average price of Kenyan macadamia kernels ranged between USD 4 and USD 5 per kilogram.

In addition, nuts-in-shell exports in the period under review were 1,876.76 MT valued at KES 219.68 million. The countries of destination were China and Vietnam which are major processing hubs for nuts-in-shell



### 4.4. Ground nuts

Groundnuts, also known as peanuts and locally called “Njugu Karanga” (Swahili), are primarily cultivated in the Nyanza, Western, Rift Valley, Eastern and Coast regions. This crop is mostly grown by small-scale farmers, who use an average of 0.78 acres of land per farmer.

#### 4.4.1. Agriculture Performance

During the period under review, peanut production increased from 12,750 MT in 2022 to 16,558 MT valued at KES 3.1 billion. This rise was attributed to an extension in the cultivated area for the crop, growing from 12,788 Ha to 14,899 Ha corresponding to 16.5 percent increment. For more information, refer to Table 49, 50 and 51.

**Table 49: Area under Ground nuts, Production and Value by County in 2021 and 2023**

County	Area (Ha)			Quantity (MT)			Value (KES) million		
	2021	2022	2023	2021	2022	2023	2021	2022	2023
Homa Bay	5,529	4,466	4,217	3870	4,229	4,687	491.25	718.87	703
Kakamega	2,100	1,771	2,019	2601	2,194	2,244	234.09	361.96	448.77
Migori	1,541	1,479	2,139	1510	1,450	2,377	145.53	231.92	511.14
Kisumu	561	649	492	592	685	546	74.61	108.18	109.27
Siaya	627	691	766	502	554	851	65.76	89.12	170.22
Bungoma	760	719	780	854	808	867	105.11	120.38	173.4
Busia	940	541	401	846	487	445	93.06	70.63	80.13
Elgeyo Marakwet	339	459	284	329	446	315	35.26	61.96	63.06
Vihiga	68	290	423	30	215	471	3.9	30.75	94.11
Meru	849	976	1698	764	879	1887	68.73	105.43	377.43
Kisii	365	186	145	420	214	162	54.02	33.25	32.33
Tharaka Nithi	192	131	143	115	111	159	11.52	14.38	31.78
West Pokot	15	52	826	11	53	918	0.99	6.52	183.68
Trans-Nzoia	77	89	141	45	74	157	4.32	10.88	31.44
Lamu	10	42	61	9	38	68	1.35	6.53	11.52
Kwale	29	55	64	15	42	71	1.66	5.82	12.53
Baringo	98	38	20	87	34	22	9	4.84	3.48
Taita Taveta	14	22	62	10	21	69	1.1	3.19	13.78
Tana River	107	61	112	222	127	124	22.2	20.39	24.9
Others	53	71	106	66	89	118	7.25	12.43	23.56
<b>Total</b>	<b>14,274</b>	<b>12,788</b>	<b>14,899</b>	<b>12,898</b>	<b>12,750</b>	<b>16,558</b>	<b>1,431</b>	<b>2,017</b>	<b>3,099.53</b>

Source: AFA-Nuts and Oil Crops Directorate

Table 50: Area under Groundnuts and Production by County from 2019-2023

County	Area (Ha)					Production (MT)				
	2019	2020	2021	2022	2023	2019	2020	2021	2022	2023
Homa Bay	4,132	3,923	5,529	4,466	4,217	3,677	3,461	3,870	4,229	4,687
Kakamega	1,322	1,377	2,100	1,771	2,019	1,177	1,232	2,601	2,194	2,244
Migori	814	972	1,541	1,479	2,139	804	962	1,510	1,450	2,377
Busia	670	515	940	541	401	745	601	846	487	445
Meru	529	412	849	976	1,698	523	406	764	879	1,887
Bungoma	644	591	760	719	780	716	665	854	808	867
Siaya	520	671	627	691	766	467	619	502	554	851
Kisumu	932	902	561	649	492	691	661	592	685	546
Kisii	201	196	365	186	145	124	179	420	214	162
Elgeyo Marakwet	5,109	502	339	459	284	5,679	451	329	446	315
Tharaka Nithi	96	121	192	131	143	95	59	115	111	159
Baringo	75	52	98	38	20	67	46	87	34	22
Vihiga	560	496	68	290	423	346	420	30	215	471
Trans Nzoia	56	67	77	89	141	50	42	45	74	157
Kwale	53	61	29	55	64	47	56	15	42	71
West Pokot	72	81	15	52	826	78	57	11	53	918
Lamu	89	67	10	42	61	88	68	9	38	68
Taita Taveta	26	22	14	22	62	19	14	10	21	69
Tana River	11	9	107	61	112	10	19	222	127	124
Others	54	61	53	71	106	61	54	66	89	118
<b>Total</b>	<b>15,965</b>	<b>11,098</b>	<b>14,274</b>	<b>12,788</b>	<b>14899</b>	<b>15,463</b>	<b>10,072</b>	<b>12,898</b>	<b>12,750</b>	<b>16,558</b>

Source: AFA-Nuts and Oil Crops Directorate

Table 51: Value of Groundnuts from 2019-2023

County	Value (KES) million				
	2019	2020	2021	2022	2023
Homa Bay	514.8	460.31	491.25	718.87	703
Kakamega	162.4	158.88	234.09	361.96	448.77
Migori	113.4	134.71	145.53	231.92	511.14
Kisumu	86.3	92.48	74.61	108.18	109.27
Siaya	62.6	86.72	65.76	89.12	170.22
Bungoma	88.8	86.48	105.11	120.38	173.4
Busia	100.6	78.13	93.06	70.63	80.13
Elgeyo Marakwet	709.9	45.1	35.26	61.96	63.06

County	Value (KES) million				
	2019	2020	2021	2022	2023
Vihiga	47.7	60.9	3.9	30.75	94.11
Meru	66.4	52.73	68.73	105.43	377.43
Kisii	16.4	24.72	54.02	33.25	32.33
Tharaka Nithi	12.3	8.35	11.52	14.38	31.78
West Pokot	10	22.44	0.99	6.52	183.68
Trans Nzoia	6.6	5.73	4.32	10.88	31.44
Lamu	10.9	9.37	1.35	6.53	11.52
Kwale	6.4	8.03	1.66	5.82	12.53
Baringo	8.9	6.18	9	4.84	3.48
Taita Taveta	2.6	2.06	1.1	3.19	13.78
Tana River	1.4	2.85	22.2	20.39	24.9
Others	8.5	8.1	7.25	12.43	23.56
<b>Total</b>	<b>2,036.90</b>	<b>1,354.27</b>	<b>1,430.71</b>	<b>2,017.43</b>	<b>3,099.53</b>

Source: AFA-Nuts and Oil Crops Directorate

#### 4.4.2. Market Performance

Peanuts are primarily offered in the local market as roasted nuts, although other value-added goods such as peanut flour, peanut oil and peanut butter are also available. Peanut farm gate prices in the year under review ranged between KES 150 and KES 200 per Kg.

Kenya imported a total of 8,767.6 MT of groundnuts worth KES 1.92 billion from Argentina, Malawi, India, Tanzania and Netherlands during the review period, to mitigate the local consumption deficit. For more details, refer to Table 52.

Table 52: Imports of Peanuts in 2023

Country of origin	Volume (MT)
Argentina	7,213.98
Malawi	505
India	458.5
Tanzania	327
Netherlands	263.12
<b>Total</b>	<b>8,767.60</b>

Source: AFA-Nuts and Oil Crops Directorate



## **4.5. Bambara nut**

Bambara nut, an indigenous African crop is an excellent source of protein, carbs and fat. Bambara nut is durable, with tolerance to drought, poor soils and intense heat making it ideal for growing in low-input production systems. Despite their high nutritional value Bambara groundnut production has declined over time owing to factors such as insufficient seed supply and low-quality seeds, erratic germination and emergence and the prevalence of low-yielding locally adapted Bambara varieties. Furthermore, low yields caused by intercropping and poor agronomic methods have hampered production. Notably, the primary Bambara-producing counties are Vihiga, Kakamega, Bungoma and Busia.

### ***4.5.1. Agriculture Performance***

During the period under review, the area under Bambara nuts declined from 209 Ha in 2022 to 147 Ha representing a 30 percent decrease. Bambara nuts production fell by 138 MT from 528 MT in 2022 to 390 MT in 2023.

### ***4.5.2. Market Performance***

The value increased by KES 22.1 million from KES 186.3 million in 2022 to KES 208 million in 2023. For more details, refer to Table 53, 54 and 55.

**Table 53: Area under Bambara nuts, Production and Value by County in 2021-2023**

County	Area (Ha)			Quantity (MT)			Value (KES) million		
	2021	2022	2023	2021	2022	2023	2021	2022	2023
Busia	71	77	25	192	181	58.4	66.24	62.36	23.37
Kakamega	83	98	83	192	255	217.4	68.16	90.46	86.96
Bungoma	8	9	5	20	22	13.4	7.2	7.91	58.34
Vihiga	11	12	17	30	35	50.8	10.5	12.08	20.31
Lamu	7	7	15	21	23	45	8.19	9.04	17.55
Kwale	5	6	2	10	12	4.8	3.7	4.44	1.91
<b>Total</b>	<b>185</b>	<b>209</b>	<b>147</b>	<b>465</b>	<b>528</b>	<b>390</b>	<b>164</b>	<b>186.3</b>	<b>208.4</b>

Source: AFA-Nuts and Oil Crops Directorate

**Table 54: Area under Bambara nuts and Production by County from 2018 – 2023**

County	Area (Ha)						Production (MT)					
	2018	2019	2020	2021	2022	2023	2018	2019	2020	2021	2022	2023
Busia	260	201	97	71	77	25	2,389	1,887	196	192	181	58.4
Kakamega	78	67	61	83	98	83	801	598	177	192	255	217.4
Bungoma	8	7	8	8	9	5	68	63	19	20	22	13.4
Vihiga	10	8	8	11	12	17	49	66	22	30	35	50.8
Lamu	6	8	7	7	7	15	49	80	24	21	23	45
Kwale	8	5	6	5	6	2	53	35	12	10	12	4.8
<b>Total</b>	<b>369</b>	<b>297</b>	<b>187</b>	<b>185</b>	<b>209</b>	<b>147</b>	<b>3,409</b>	<b>2,729</b>	<b>450</b>	<b>465</b>	<b>528</b>	<b>390</b>

Source: AFA-Nuts and Oil Crops Directorate

**Table 55: Value of Bambara nuts from 2018-2023**

County	Value (KES) million					
	2018	2019	2020	2021	2022	2023
Busia	800.32	610	68.6	66.24	62.36	23.37
Kakamega	264.33	173.1	63.72	68.16	90.46	86.96
Bungoma	19.04	19.5	7.22	7.2	7.91	58.34
Vihiga	17.15	21	8.03	10.5	12.08	20.31
Lamu	14.21	16.8	9.36	8.19	9.04	17.55
Kwale	15.9	12.2	4.44	3.7	4.44	1.91
<b>Total</b>	<b>1,131.00</b>	<b>852.6</b>	<b>161.4</b>	<b>164</b>	<b>186</b>	<b>208.4</b>

Source: AFA-Nuts and Oil Crops Directorate



## 4.6 Sesame

Sesame is farmed in three regions in Kenya: the coastal, western, and eastern. There are local sesame types named from the color of its seeds such as white, black, and brown. White seeded types are primarily planted in the Western region, whereas black seeded variants are grown along the coast. Lamu County is the largest producer of sesame this is due to the fertile soils and favorable climate resulting in high yield.

### 4.6.1. Agriculture Performance

The total area used for sesame farming grew from 5,352 Ha in 2022 to 5,943 Ha in 2023. The production increased from 3,192 MT in 2022 to 3,645 MT in 2023 due to favorable weather conditions across the growing areas.

### 4.6.2. Market Performance

The farm gate price for sesame seeds ranged from KES 150 to KES 200 per Kg, varying according to the season and the variety. In the period under review, Kenya exported 573 MT of sesame seeds valued at KES 106 million to Saudi Arabia, UAE and Yemen and 40.7 MT of sesame oil to Germany and the Netherlands. For more details, refer to Table 56, 57 and 58.

**Table 56: Area under Sesame, Production and Value by County in 2021-2023**

County	Area (Ha)			Production (MT)			Values (KES) million		
	2021	2022	2023	2021	2022	2023	2021	2022	2023
Lamu	4,357	4,170	4501	2,567	2,675.80	2,887.30	191.23	199.33	433.1
Busia	119	353	103	80.34	238.1	69.75	5.59	16.57	35.7

Mandera	169	218	647	106	136.7	406	10.18	13.13	20.5
Tana River	496	501	302	52	69.8	42.07	4.3	5.58	10.47
Bungoma	27	24	11.6	20	17.8	8.66	2.3	2.04	2.64
Siaya	19	69	18	6	38.8	10.64	0.62	4.01	5.82
Kakamega	1.7	4	9.6	1.4	3	7.24	0.14	0.3	0.45
Homa Bay	14	13	19	12.06	11.5	5	1.21	1.15	2.3
Others	-	-	332	-	-	207.87	-	-	31.18
<b>Total</b>	<b>5,203</b>	<b>5,352</b>	<b>5,943.20</b>	<b>2,845</b>	<b>3,191.50</b>	<b>3,644.53</b>	<b>215.6</b>	<b>242.11</b>	<b>542.16</b>

Source: AFA-Nuts and Oil Crops Directorate

Table 57: Area under Sesame and Production by County from 2019-2023

County	Area (Ha)					Production (MT)				
	2019	2020	2021	2022	2023	2019	2020	2021	2022	2023
Lamu	11,480	11,539	4,357	4,170	4501	9,924	10,029	2,567	2,675.80	2,887.30
Busia	490	502	119	353	103	363	370	80.34	238.1	69.75
Mandera	230	258	169	218	647	204	220	106	136.7	406
Tana River	138	122	496	501	302	77.1	69	52	69.8	42.07
Bungoma	12	10	27	24	11.6	10.2	11.5	20	17.8	8.66
Siaya	98	83	19	69	18	70.1	64	6	38.8	10.64
Kakamega	7	6.8	1.7	4	9.6	5.7	5.3	1.4	3	7.24
Homa Bay	5	4.7	14	13	19	3.7	4.1	12.06	11.5	5
Others	-	-	-	-	332	-	-	-	-	207.87
<b>Total</b>	<b>12,460</b>	<b>12,526</b>	<b>5,203</b>	<b>5,352</b>	<b>5943.2</b>	<b>10,658</b>	<b>10,773</b>	<b>2,845</b>	<b>3,191.50</b>	<b>3,644.53</b>

Source: AFA-Nuts and Oil Crops Directorate

Table 58: Value of Sesame from 2018-2023

County	Values (KES) million					
	2018	2019	2020	2021	2022	2023
Lamu	428.11	541.3	902.61	191.23	199.33	433.1
Busia	47.9	39.9	40.7	5.59	16.57	35.7
Mandera	10.33	22.3	20.9	10.18	13.13	20.5
Tana River	0.86	0.91	5.87	4.3	5.58	10.47
Bungoma	1.04	0.99	1.15	2.3	2.04	2.64
Siaya	7.01	7.12	6.02	0.62	4.01	5.82
Kakamega	0.46	0.77	0.74	0.14	0.3	0.45
Homa Bay	0.52	0.51	0.51	1.21	1.15	2.3
Others	-	-	-	-	-	31.18
<b>Total</b>	<b>496.2</b>	<b>613.8</b>	<b>978.5</b>	<b>215.6</b>	<b>242.1</b>	<b>542.16</b>

Source: AFA-Nuts and Oil Crops Directorate



## 4.7. Canola (Rapeseed)

In recent years, canola production has been on the rise across Kenya. More acreage is being used to grow canola, especially in the Upper Eastern, Central and Rift Valley regions which has led to increase in production due to high demand for canola oil. Farmers are also finding value in the by-product of canola called canola cake, which is rich in protein and often used in animal feed. Additionally, after advanced processing, canola oil is used to make biodiesel which adds to its demand. Canola is also becoming popular among wheat, barley, and maize farmers as a rotational crop because it helps improve soil quality, leading to better yields in the next crop cycle.

### 4.7.1. Agriculture Performance

During the review period, the area under canola cultivation expanded from 4,381 Ha in 2022 to 4,509 Ha, translating to a 3 percent increase. Production rose from 14,594 MT in 2022 to 14,603 MT in 2023. The growth was attributed to the rising adoption of canola production among small-scale farmers in cereal-producing regions. For more details, refer to Table 59.

*Table 59: Area under Canola, Production and Value 2021-2023*

County	Area (Ha)			Quantity (MT)			Value KES (million)		
	2021	2022	2023	2021	2022	2023	2021	2022	2023
Nakuru	1,157	1,179	1,192	4,091	4,267	4,314	205	233	276
Laikipia	1,170	1,240	1,205	3,811	3,832	3,723	171	172	275
Meru	720	836	842	1,944	2,056	2,071	89	158	407
Narok	237	215	244	832	793	890	37	36	27.4
Uasin Gishu	175	187	193	603	645.6	712	30	36	27.1
Nyeri	173	197	142	523	575.7	490	24	28	29
Trans Nzoia	138	132	152	628	612.3	455	30	32	33.4

County	Area (Ha)			Quantity (MT)			Value KES (million)		
	2021	2022	2023	2021	2022	2023	2021	2022	2023
Baringo	98	56	102	506	414	473	26	29	21.5
Samburu	124	116	138	477	449.7	413	24	27	33.4
Nyandarua	135	148	156	501	481.8	508	27	31	30.7
Elgeyo Marakwet	75	52	92	386	369.8	338	20	24	27.2
Bungoma	34	23	51	129	97.3	216	6	5	23.4
<b>Total</b>	<b>4,236</b>	<b>4,381</b>	<b>4,509</b>	<b>14,431</b>	<b>14,594</b>	<b>14,603</b>	<b>690</b>	<b>811</b>	<b>1,211</b>

Source: AFA-Nuts and Oil Crops Directorate

#### 4.7.2. Market Performance

In the year under review, farm gate prices for canola ranged from KES 60 to KES 80 per Kg. The growing awareness of the health benefits associated with canola oil, particularly among the ageing population has led to increased demand and thus consequently boosting the farm gate prices. The emergence of cottage industries focusing on canola oil production has also intensified competition for available produce, contributing to the improved prices observed.



Sunflower is grown primarily for cooking oil or as an animal feed. Currently, the country relies significantly on imported edible oil for cooking due to low production. During the period under review, the government launched the Edible Oil Crops Promotion Project, which aims to reduce edible oil imports. The project's goals are to provide high-quality seeds, teach farmers in contemporary farming techniques and value addition and provide access to markets. Sunflower is one of the project's target crops.

### 4.8.1. Agriculture Performance

In the year being reviewed, the total area cultivated with sunflower was estimated to be 7,249 Ha, resulting in a production of 10,861 MT.

### 4.8.2. Market Performance

The value of this production amounted to KES 466 million. For more details, refer to Table 60.

*Table 60: Area under Sunflower, Production and Value 2022 and 2023*

County	Area (Ha)		Production (MT)		Value millions (KES)	
	2022	2023	2022	2023	2022	2023
Bungoma	1,362	939	330.7	1,487	9.92	55
Busia	300	610	60.7	910	2.12	35.5
Nakuru	161.87	564	39.3	890	1.97	44.5
Uasin Gishu	40.46	313	13.1	530	0.65	26.5
Kitui	41.28	41	8.02	43	0.24	1.3
Kilifi	28	28	7.37	27	0.52	0.9
Kakamega	40	140	6.47	180	0.26	7.2
Meru	20.23	70	4.91	90	0.2	4.6
Lamu	18	82	4.37	113	0.26	6
Makueni	12.14	32	2.65	35	0.11	1.1
Embu	10.12	20	2.46	24	0.1	1
Taita Taveta	6.7	65	1.76	71	0.09	2.3
Kwale	4.8	55	1	60	0.06	2.1
Homa Bay	-	1,050	-	1600	-	76.8
Murangá	-	7	-	8	-	0.3
Nyeri	-	12	-	11	-	0.4
Migori	-	950	-	1400	-	63
Laikipia	-	704	-	1100	-	46.2
Siaya	-	815	-	1217	-	48.7
Narok	-	638	-	950	-	38
Others	-	114	-	115	-	4.4
<b>Total</b>	<b>2,046</b>	<b>7,249</b>	<b>483</b>	<b>10,861</b>	<b>16.49</b>	<b>466</b>

Source: AFA-Nuts and Oil Crops Directorate



## 4.9. Castor

Castor (*Ricinus communis*) is a drought-tolerant crop that is adapted to low moisture conditions. Castor is grown for its seeds which are used to extract castor oil. Castor oil is used in the production of biofuels, lubricants, cosmetics and pharmaceuticals. Castor is grown in Kilifi, Kwale, Lamu, Tana River, Taita Taveta, Kitui, Machakos, Makueni, Nakuru, Embu and Homa Bay counties.

The major challenges facing castor production include: high incidences of pests and diseases and labor-intensive production activities with low farm mechanization discouraging cultivation on large tracts of land.

There are ongoing evaluations of castor planting materials through a collaborative project between the Kenya Agricultural and Livestock Research Organization (KALRO), ENI (an off-taker) and the University of Bologna, Italy. The project aims to identify suitable castor seeds for various Kenyan agro-ecological zones and develop specific agronomic guidelines for castor growers. The best-performing castor hybrids are currently at national performance trials ahead of the official release.

### 4.9.1. Agriculture Performance

In the period under review, the area under castor was 1,430.40 acres in 11 counties. The top four counties Makueni, Kilifi, Taita Taveta and Nakuru accounted for 79.9 percent of area under castor. Machakos and Homa Bay counties registered the least area under the crop. For more details, refer to Table 61.

**Table 61: Area under Castor in 2023**

County	Acres	% of Total
Makueni	327.02	22.9
Kilifi	324.7	22.7
Taita Taveta	268.25	18.8
Nakuru	222.71	15.6
Lamu	72.00	5.0
Kwale	52.25	3.7
Tana River	46.85	3.3
Kitui	40.15	2.8
Embu	36.55	2.6
Machakos	22.37	1.6
Homa Bay	17.55	1.2
<b>Total</b>	<b>1,430.40</b>	<b>100</b>

Source: AFA - Nuts and Oil Crops Directorate

#### 4.9.2. Marketing Performance

In Kenya, castor is mainly traded as seeds or semi-processed crude castor oil. In the period under review the farm gate price of castor seeds ranged between KES 150 and KES 200 per Kg depending on the season. Kenya exported 4,700 MT of castor seeds valued at KES 639.50 million. Kenya major export market is Italy. In the same period, volumes of castor oil imported was 4,968 MT valued at KES 859.04 billion. Kenya's main castor imports are from Brazil, Germany, Ethiopia, Zambia and India.



## 4.10. Imports of Edible Oils

Kenya relies heavily on imported oil products, including palm oil, sunflower oil, coconut oil, linseed oil, canola oil and sesame oil. In 2023, the country imported a total of 798,580 MT of edible oil, valued at KES 102 billion, making edible oil one of the most significant import commodities. Crude palm oil from Asian countries accounts for the majority of import volume and value, followed by peanuts from Africa. The most imported commodity in the subsector is crude palm oil, which is used in edible oil refineries. For more details, refer to Table 62.

*Table 62: Imports of all Nuts and Oil Crop Products 2023*

Product	Total Volume (MT)	
	Volume (MT)	Value (KES million)
Palm oil, crude	764,804.50	96,882.88
Ground nuts	8,769.09	1,926.19
Oil cake	8,749.52	225.39
Sunflower oil	6,919.72	1,205.92
Castor oil seeds	4,968.87	859.04
Rapeseed oil	3,081.45	602.4
Coconut oil	888.31	164.53
Sesame seeds	129.02	26.11
Coconuts Desiccated	128.54	27.86
Castor oil	37.19	10.06
Rapeseed	19.98	18.9
Almonds Shelled	17.51	8.35
Groundnut oil	16.88	5.43
Linseed	14.33	2.37
Sunflower seeds	12.59	37.81
Walnuts Shelled	8.58	15.66
Sesame oil	6.67	11.54
Linseed oil	3.11	1.15
Coconut Fibres (coir)	1.99	2.72
Pistachios Shelled	1.9	2.43
<b>Total</b>	<b>798,579.74</b>	<b>102,036.73</b>

## 4.11. Exports of Nuts and oil Crops Products

Kenya successfully exported a total of 15,441 MT of various nuts and oil crop products worth KES 7 billion during the year under review. Among these exports, macadamia nut kernel emerged as the top commodity, with shipping largely to the USA, Germany and the Netherlands. Netherlands, in particular, serves as a major distribution hub for Kenyan nuts destined for the larger European Union market. For more details, refer to Table 63.

*Table 63: Exports of Nuts and Oil Crop Products 2023*

Product	Volume (MT)	Value (KES million)
Macadamia nuts shelled	7,800.33	5,753.67
Castor oil	4,700.00	639.5
Macadamia nuts in shell	1,876.76	219.69
Sesame seeds	572.78	106.24
Cashew nuts	427.61	326.01
Sesame oil	40.73	29.08
Coconut oil	7	3.66
Coconuts desiccated.	2.13	2.85
Other seeds	14.6	10.86
<b>Total</b>	<b>15,441.94</b>	<b>7,091.55</b>

*Source: AFA-Nuts and Oil Crops Directorate*

# **FIBRE CROPS**

- AGRICULTURE PERFORMANCE
  - MARKET PERFORMANCE
- CHALLENGES & INTERVENTIONS

## **CHAPTER 5**

## CHAPTER 5: FIBRE CROPS

### *Introduction*

Fibre Crops discussed under this chapter entails sisal and cotton value chains in the country.



### **5.1. Cotton**

The Government of Kenya's proactive measures, including the introduction of genetically modified (Bt) cotton, are expected to augment production capacity significantly. This move is anticipated to increase yields, improving farmer's profitability and entice more agricultural households to venture into cotton farming, hence expanding the market size. Cotton has been identified as a priority Fibre under BETA crops, based on its production potential.

Cotton farming is majorly carried out in the Arid and Semi-Arid Areas (ASAL) mostly under rain fed. The crop is traditionally grown in 25 counties but only 21 counties registered cotton production during the year under review. These counties include Lamu, Homa Bay, Siaya, Meru, Kitui, Kisumu, Baringo, Busia, Taita Taveta, Kwale, Kilifi, Makueni, Tharaka Nithi, Embu, Elgeyo Marakwet, Kirinyaga, Machakos, Bungoma, Migori, Tana River, Uasin Gishu and Isiolo. West Pokot, Turkana, Laikipia and Murang'a did not undertake cotton production in the year under review.

## 5.1.1. Agriculture Performance

### 5.1.1.1. Area under Cotton

The total area under cotton rose to 12,152 Ha in 2023 from 8,585 Ha in 2022, resulting to a 42 percent increase attributed to prompt disbursement of planting materials (cotton seed) and pesticides to farmers. The increase in area was also ascribed to concerted efforts by the government to revitalize cotton, as a strategy to reduce importation of seed cake and lint, as envisioned in government's Bottom-Up Economic Transformation Agenda (BeTA) plan. In realizing the plan, the national government, the county government, the ginneries and textiles mills supported the farmers during the period under review, in provision of certified seeds during the planting season.

It is worth noting that despite Busia recording a high acreage under cotton in the period under review, production was unexpectedly lower due to late planting, high rainfall at the time of harvesting and poor agronomic practices especially on pest management. The high acreage in Busia was due to a deliberate promotion effort by national government having identified the county as a pilot project, under BETA for transformative interventions for cotton revitalization.

### 5.1.1.2. Production of Seed Cotton

The two grades of the seed cotton (unginned cottonseed with the attached lint) produced during the period under review were grade AR forming approximately 99 percent of the total seed cotton produced and grade BR forming 1 percent of the total seed cotton produced as illustrated in Table 53.

The total quantity of seed cotton increased to 3,863 MT in 2023 from 3,762 MT recorded in 2022. The increase in production was as a result of efforts made by the government to revitalize the cotton industry.

The average productivity of seed cotton decreased to 127 Kgs per Ha in 2023 from 438 Kgs per Ha in 2022 mainly due to harsh weather conditions and flash floods experienced during critical periods of crop production. In addition, late planting as a result of late delivery of cotton seeds in some of key cotton growing counties contributed to decline in productivity during the period under review. Refer to Table 64 and 65 for more details.

**Table 64: Area, Production and Productivity 2017-2023**

Year	2017	2018	2019	2020	2021	2022	2023
Area (Ha)	20,717	13,617	18,000	9,837	10,640	8,585	12,152
Seed Cotton production (MT)	11,850	5,321	3,015	3,390	1,300	3,762	3,863
Yield (Kg/Ha)	572	391	168	345	122	438	127

Source: AFA - Fibre Crops Directorate

**Table 65: Seed Cotton and Lint Production 2023**

County	Seed Cotton Production							Lint Production	
	Area (Acres)	Grade AR (MT)	Total value AR (KES)	Grade BR (MT)	Total Value BR (KES)	Total seed cotton (MT)	Total value seed cotton (AR +BR) KES	Total Bales (185 Kgs)	Value of Lint (KES)
Lamu	4,500.00	2,141.00	120,718,176.00	1.00	38,700.00	2,142.00	120,756,876.00	3,894.00	180,610,841.67
Homa Bay	5,530.00	450.00	31,553,227.16	2.00	66,624.00	452.00	31,619,851.16	844.00	37,073,260.00
Meru	3,200.00	253.00	17,043,987.00	11.00	357,889.00	264.00	17,401,876.00	439.00	15,057,794.50
Siaya	2,465.00	200.00	13,000,000.00	-	-	200.00	13,000,000.00	345.00	14,074,800.00
Busia	5,500.00	167.00	10,822,565.00	1.00	32,316.00	168.00	10,854,881.00	301.00	12,805,076.67
Baringo	1,730.00	119.00	6,929,265.80	3.00	143,177.23	122.00	7,072,443.03	232.00	9,773,382.50
Kitui	450.00	104.00	6,121,497.00	7.00	193,442.00	111.00	6,314,939.00	201.00	8,323,350.00
Tharaka Nithi	1,150.00	79.00	4,813,541.00	1.00	30,591.00	80.00	4,844,132.00	142.00	6,139,866.60
Kilifi	106.00	69.00	4,313,445.60	1.00	32,595.00	70.00	4,346,040.50	129.00	5,474,602.83
Makueni	285.00	56.00	3,645,395.00	8.00	241,380.00	64.00	3,886,775.00	119.00	5,209,186.67
Taita Taveta	230.00	50.00	2,915,370.00	0.10	5,075.00	50.10	2,920,445.00	92.00	4,212,800.00
Kisumu	3,100.00	33.00	1,938,916.50	4.00	85,036.25	37.00	2,388,594.25	72.00	3,022,530.00
Bungoma	283.00	30.00	1,930,500.00	0.04	1,200.00	30.04	1,931,700.00	55.00	2,343,250.00
Embu	675.00	21.00	1,251,135.00	2.00	55,168.00	23.00	1,306,303.00	48.00	1,987,891.10
Kwale	97.00	21.00	1,260,000.00	-	-	21.00	1,260,000.00	38.00	1,666,000.00
Kirinyaga	85.00	9.00	502,150.00	1.00	31,330.00	10.00	533,480.00	20.00	857,366.50
Elgeyo Marakwet	55.00	8.00	538,102.50	0.30	8,547.50	8.30	546,650.00	16.00	664,150.00
Machakos	344.00	4.00	210,000.00	-	-	4.00	210,000.00	7.00	303,333.33
Tana River	150.00	4.00	240,000.00	-	-	4.00	240,000.00	8.00	346,666.67
Isiolo	20.00	2.00	93,500.00	-	-	2.00	93,500.00	3.00	141,700.00
Migori	60.00	1.00	42,000.00	-	-	1.00	42,000.00	1.00	56,000.00
<b>Total</b>	<b>30,015.00</b>	<b>3,821.00</b>	<b>229,882,773.56</b>	<b>42.44</b>	<b>1,323,070.98</b>	<b>3,863.44</b>	<b>231,570,485.94</b>	<b>7,006.00</b>	<b>310,143,849.04</b>

Source: AFA - Fibre Crops Directorate

The value of seed cotton rose to KES 231.6 million in 2023 from KES 211.8 million in 2022, an increase attributed to better farm gate prices ranging between KES 50 - KES 68 per Kg. Refer to Table 66 for more details.

**Table 66: Area, Production and Value from 2021 to 2023**

County	Area (Ha)			Production (MT)			Total Value (KES) millions		
	2021	2022	2023	2021	2022	2023	2021	2022	2023
Lamu	800	1,134	1,821	203	2,267	2,142	10.13	131.52	120.76
Homa Bay	840	1,822	2,238	224	487	452.08	11.60	25.30	31.62
Meru	2,688	1,518	1,295	211	128	263.86	10.54	6.92	17.40
Siaya	1,400	1,053	998	191	331	200	9.15	18.72	13.00
Busia	1,400	951	2,226	36	68	167.43	1.78	3.63	10.85
Baringo	148	211	700	69	88	122.42	3.43	4.71	7.07
Kitui	834	304	450	100	111	110.22	5.23	6.10	6.31
Tharaka Nithi	812	425	465	24	15	80.48	1.22	0.75	4.84
Kilifi	20	44	43	2	28	70.37	0.09	1.39	4.35
Makueni	458	223	115	31	16	64.13	1.36	1.03	3.89
Taita Taveta	40	40	93	18	37	50.41	0.88	1.91	2.92
Kisumu	60	130	1,255	34	110	37.33	1.74	6.26	2.39
Bungoma	72	101	115	3	6	29.74	0.13	0.33	1.93
Embu	396	336	273	7	12	23.19	0.37	0.59	1.31
Kwale	24	31	39	13	32	21	0.65	1.64	1.26
Elgeyo Marakwet	24	23	22	20	9	8.54	0.99	0.22	0.55
Kirinyaga	28	31	34	7	8	10.32	0.36	0.39	0.53
Machakos	520	162	139	31	7	4.1	1.53	0.31	0.21
Tana River	56	-	61	65	-	4	3.46	-	0.24
Isiolo	-	-	8	-	-	1.7	-	-	0.09
Migori	20	40	24	10	2	0.5	0.50	0.12	0.04
Laikipia	-	6	-	-	-	-	-	-	-
Uasin Gishu	-	-	-	1	-	-	0.03	-	-
<b>TOTAL</b>	<b>10,640</b>	<b>8,585</b>	<b>12,152</b>	<b>1,300</b>	<b>3,762</b>	<b>3,863</b>	<b>65.16</b>	<b>211.82</b>	<b>231.57</b>

Source: AFA - Fibre Crops Directorate

### 5.1.1.3. Seed Support

There was a concerted effort by the Government through BETA plan, and the private sector to revitalize cotton production through seed support programme. During the period under review, the farmers received a total of 28,817 Kg of BT seeds from both the government and the private sector. In addition, a total of 103,329 Kg of conventional seeds were issued. The seeds were targeted to be planted in an area of approximately 40,000 acres during the season. The breakdown of the support is shown in Table 67:

**Table 67: Seed Support and Area equivalent for Oct/Nov 2022 and March/April 2023 Seasons**

COUNTY	SEED SUPPLIED (KGS)		AREA EQUIVALENT (ACRES)
	BT	OPV	
Isiolo	30	-	20
Meru	225	17,772	3,112
Tharaka/Nithi	315	6,873	1,355
Embu	675	-	450
Kirinyaga	150	-	100
Machakos	545	60	373
Makueni	500	-	333
Kitui	-	10,710	1,785
Baringo	787	9,060	2035
Elgeyo Marakwet	-	-	-
Bungoma	500	-	333
Busia	8,900	-	5,933
Siaya	3,100	5000	2,900
Kisumu	1,532	12,507	3,084
Homa Bay	1,548	41,055	7,874
Migori	18	292	60
Lamu	8,467	-	5,644
Tana River	375	-	250
Kilifi	300	-	200
Kwale	400	-	267
Taita/Taveta	450	-	300
<b>TOTAL</b>	<b>28,817</b>	<b>103,329</b>	<b>36,408</b>

Source: AFA - Fibre Crops Directorate

## 5.1.2. Market Performance

### 5.1.2.1. Lint Production

During the period under review, a total of 7,006 bales of lint was produced compared to 6,779 bales recorded in 2022. The value of lint produced during the period under review was KES 310 million representing a 9.9 percent increase from KES 282 million in 2022. The increase in value of lint was mainly due to the high demand of the commodity as a result of low supply of lint in the international market from the major players, China and USA. This scenario saw the price of lint rising to fetch an average KES 328 per Kg in the international market. For more details, refer to Table 68.

**Table 68: Lint Production and Value 2017-2023**

Year	2017	2018	2019	2020	2021	2022	2023
Bales of Lint cotton (185 Kg)	21,351	10,674	5,432	6,106	3,019	6,779	7,006
Average Price of Lint (KES/Kg)	164	164	190	180	190	230	328
Value of Lint (KES million)	648	324	190	203	106	282	310

Source: AFA - Fibre Crops Directorate

### 5.1.2.2. Import and Export of Cotton Products

During the period under review, various cotton products were imported mainly from Uganda and Tanzania. These included cotton seed, cotton seed cake, crude cotton oil and cotton lint. Cotton seeds was the major import at 19,059.9 MT valued at KES 800.52 million followed by Cotton cake at 9,085.2 MT valued at KES 363.4 million. For more details, refer to Table 69.

**Table 69: Cotton Imports from Country of Origin**

Cotton Products	Tanzania	Uganda	Total	Value (KES)
Cotton Seeds (Kg)	14,441,000	4,618,949	19,059,949	800,517,858.00
Cotton Cake (Kg)	8,792,180	293,000	9,085,180	363,407,200.00
Crude Oil (Kg)	836,500	-	836,500	83,650,000.00
Cotton Lint (Kg)	103,500	-	103,500	15,525,000.00
Cotton Seed Meal (Kg)	28,000	-	28,000	1,120,000.00
<b>Total</b>	<b>24,201,180</b>	<b>4,911,949</b>	<b>29,113,129</b>	<b>1,264,220,058.00</b>

Source: AFA - Fibre Crops Directorate

### 5.1.3. Challenges facing the Cotton sub-sector and Possible Interventions

**Table 70: Challenges and Interventions Facing the Cotton Sub-sector**

Challenges	Interventions
<ul style="list-style-type: none"> <li>• Erratic weather conditions particularly in Eastern and Western regions of the country led to total crop failure.</li> <li>• Inadequate certified BT cotton seed</li> <li>• Delayed seed delivery</li> <li>• Poor agronomic practices</li> <li>• Lack of pesticide support</li> <li>• Upscaling extension service provision to cotton farmers,</li> <li>• Provision of affordable credit (Cooperative based revolving Funds),</li> <li>• Enhanced pesticide support program,</li> <li>• Capacity building of County Extension staff on cotton</li> <li>• Increased Forward and backward linkages among the actors</li> </ul>	<ul style="list-style-type: none"> <li>• The need to strengthen group approach to cotton farming</li> <li>• Upscaling extension service provision to cotton farmers,</li> <li>• Provision of affordable credit (Cooperative based revolving Funds),</li> <li>• Enhanced pesticide support program,</li> <li>• Capacity building of County Extension staff on cotton</li> <li>• Increased Forward and backward linkages among the actors</li> </ul>



## 5.2. Sisal

The sisal industry in Kenya has largely remained an export commodity sector. The industry is mainly composed of producers who are categorized into estates (8) and smallholder growers, marketing agents and spinners. Currently there are seven sisal Fibre producers involved in production and processing of sisal. Smallholder growers are spread all over ASAL, most of whom grow the crop along the boundary, hedge rows and as a conservation measure to prevent erosion. This category of growers cut the leaf and sell it to licensed processors for domestic and export purposes.

### 5.2.1. Agriculture Performance

The total area under sisal was estimated at 36,443 Ha during the period under review, a decrease of 1.40 percent compared to 36,959 Ha recorded in 2022. In 2023, the estates contributed 98 percent of total area at 35,712 Ha, while the area under smallholder farmers was 731 Ha. Refer to Table 71 and 72 for more details.

*Table 71: Area under Sisal by County*

County	Area (Ha)					% Contribution by County in 2023
	2019	2020	2021	2022	2023	
Taita Taveta	12,175	12,175	11,524	11,524	11,524	31.6
Kwale	5,880	5,880	5,880	5,880	5,880	16.1
Nakuru	4,200	4,200	4,200	4,200	5,288	14.5
Makueni	5,250	5,250	5,250	5,250	5,250	14.4
Kilifi	4,599	4,599	5,250	5,250	5,250	14.4
Baringo	2,520	2,520	2,520	2,520	2,520	6.9
Others	6,072	6,077	5,000	2,335	731	2
<b>Total</b>	<b>40,696</b>	<b>40,701</b>	<b>39,624</b>	<b>36,959</b>	<b>36,443</b>	<b>100</b>

Source: AFA - Fibre Crops Directorate

**Table 72: Area under Sisal Production by Estates and Small-scale Farmers 2023**

County	Name of Estate	Area (Ha)
Kilifi	Kilifi Plantation	610
	Rea Vipingo	4,640
Kwale	Agro processors Ltd	5,880
Taita Taveta	Voi Estates,	850
	Teita Estates	10,674
Makueni	DWA Estate	5,250
Nakuru	Majani Mingi	5,288
Baringo	Migotyo	2,520
Total Estates		35,712
Area under Smallholder Farmers		731
<b>Total</b>		<b>36,443</b>

Source: AFA - Fibre Crops Directorate

### 5.2.1.1. Sisal Production

During the period under review a total of 25,577.21 MT (an equivalent of 852,573.67 MT of green leaf) of Fibre was produced valued at KES 6,061.99 million compared to 32,251.14 MT valued at KES 6,531.68 million recorded in 2022. The decline in the quantity of sisal Fibre produced could be attributed to low demand for sisal in Nigeria, which is the major export destination for Kenyan sisal. For more details, refer to Table 73 and 74.

**Table 73: Sisal Production and Value in 2022 and 2023**

County	Volume (MT)			Value (KES) million		
	2021	2022	2023	2021	2022	2023
Taita Taveta	12,801.90	12,563.95	8,789.60	2,076.38	2,600.15	2,111.76
Makueni	6,279.15	6,975.45	6,108.40	1,018.44	1,443.59	1,469.39
Kilifi	3,639.10	4,220.30	3,752.30	590.24	873.41	906.22
Nakuru	2,905.73	3,005.13	2,678.37	471.29	621.92	646.19
Baringo	2,524.75	2,371.10	2,182.50	409.50	490.71	524.10
Kwale	2,814.00	1,716.20	983.00	456.41	355.17	234.34
Others	1,244.22	1,399.01	1,083.04	99.54	146.72	169.98
<b>Total</b>	<b>32,208.85</b>	<b>32,251.14</b>	<b>25,577.21</b>	<b>5,121.79</b>	<b>6,531.68</b>	<b>6,061.99</b>

Source: AFA - Fibre Crops Directorate

**Table 74: Sisal Production from 2019 – 2023 in MT**

County	2019	2020	2021	2022	2023
Taita Taveta	7,952.00	10,975.40	12,801.90	12,563.95	8,789.60
Makueni	6,791.90	6,651.05	6,279.15	6,975.45	6,108.40
Kilifi	4,681.52	4,674.70	3,639.10	4,220.30	3,752.30
Nakuru	2,333.14	2,947.72	2,905.73	3,005.13	2,678.37
Baringo	1,688.90	2,275.50	2,524.75	2,371.10	2,182.50
Kwale	2,282.00	2,120.00	2,814.00	1,716.20	983
Others	910.74	879	1,244.22	1,399.01	1,083.04
<b>Total</b>	<b>26,640.20</b>	<b>30,523.37</b>	<b>32,208.85</b>	<b>32,251.14</b>	<b>25,577.21</b>

Source: AFA - Fibre Crops Directorate

## 5.2.2. Market Performance

### 5.2.2.1. Volumes and Value of Exports

In the period under review, a total of 22,358 MT of Fibre was exported to thirty destinations in the world representing a 22.6 percent drop from 28,888 MT exported in 2022. The decrease in the sisal export volume in the period under review was ascribed to low demand of Fibre in Nigeria.

The top five major sisal Fibre exports destinations represented 64 percent of the exports. Similarly, the value of the Fibre exported registered a drop of 10.2 percent from KES 5,949.75 million in 2022 to KES 5,343.49 million in 2023. Refer to Table 75 for more details.

**Table 75: Monthly Export Volumes and Values in 2022 and 2023**

Month	Exports (MT)		Value in USD millions		Value in KES millions	
	2022	2023	2022	2023	2022	2023
January	2,535	2281.7	4.34	4.21	491.09	519.09
February	2,245	1,760.70	3.64	3.19	412.84	398.28
March	2,790	2,010.00	4.86	3.68	554.72	471.32
April	2,325	1,390.50	3.95	2.43	453.60	323.18
May	2,318	2,025.00	3.96	3.49	459.14	476.00
June	2,595	1,964.00	4.60	3.37	538.96	466.84
July	2,028	1,620.00	3.52	2.77	415.99	390.99
August	2,030	2,235.60	3.55	3.82	422.63	547.73
September	3,282	1,960.00	5.95	3.31	713.44	485.03
October	1,892	1,843.90	3.51	3.03	424.10	451.67
November	2,477	1,919.00	4.48	3.18	545.38	481.09
December	2,371	1,348.00	4.32	2.16	517.88	332.28
<b>Total</b>	<b>28,888</b>	<b>22,358</b>	<b>50.67</b>	<b>38.64</b>	<b>5,949.75</b>	<b>5,343.49</b>

Source: AFA - Fibre Crops Directorate

### 5.2.2.2. Average Price

The average price (FOB) during the period was KES 240.70 per Kg compared to KES 206.9 per kg recorded in 2022. The increase in price could be explained by the weakening of the Kenya Shilling against the US dollar. The highest average price of KES 255.03 per Kg was realized in November 2023 while the lowest average price was in February 2023 at KES 223.50 per Kg. For more details, refer to Table 76.

*Table 76: Monthly Average Price FOB (KES/Kg) in 2022 and 2023*

Month	Average FOB Price per Kg	
	2022	2023
January	195.06	230.63
February	189.99	223.55
March	199.38	236.18
April	191.86	232.77
May	199.59	239.01
June	207.22	240.81
July	207.03	241.30
August	206.55	246.00
September	219.01	249.89
October	222.1	250.96
November	219.52	255.03
December	225.62	242.32
<b>Average</b>	<b>206.9</b>	<b>240.70</b>

*Source: AFA - Fibre Crops Directorate*

### 5.2.2.3. Exports by Grades

A total of 11,322.65 MT of UG was exported, representing 51 percent of all Fibre traded during the year, followed by SSUG with 8,963.60 MT, representing 40 percent. The other grades contributed 9 percent of the traded volume. For more details, refer to Table 77.

**Table 77: Volume (MT) and value (in KES and USD) of sisal exports by Grade in 2022-2023**

Grade	Volume in MT		AVG Price FOB/MT USD		Value USD millions		AVG Price FOB/MT KES		Value KES millions	
	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023
UG	12,704.75	11,322.65	1,883.82	1,797.17	23.45	20.119	222,209.59	249,616.56	2,737.18	2,799.28
SSUG	12,895.75	8,963.60	1,734.45	1,719.11	22.26	15.172	204,157.23	236,235.39	2,628.27	2,083.16
3L	834	998.5	2,042.05	1,936.00	1.726	1.960	240,739.57	273,854.10	203.33	273.83
TOW.1	1,523.10	632.75	1,234.24	1,086.84	1.882	0.702	145,413.16	146,821.35	221.337	93.92
UHDS	438.5	205.9	1,296.20	1,449.17	0.558	0.301	154,144.11	203,510.80	65.67	42.59
TOW.2	415	161	1,524.65	1,595.00	0.645	0.257	179,313.78	203,661.86	76.26	32.79
NO.3	51.75	60.5	2,027.67	1,658.00	0.102	0.100	236,673.57	245,197.45	11.85	14.42
NO.1	24	13.5	2,065.00	2,000.00	0.050	0.027	244,746.28	259,964.80	5.87	3.51
<b>Total</b>	<b>28,886.85</b>	<b>22,358.40</b>			<b>50.68</b>	<b>38.64</b>			<b>5,949.75</b>	<b>5,343.49</b>

Source: AFA - Fibre Crops Directorate

#### 5.2.2.4 Sisal Exports by Destinations

In the period under review, there were a total of 30 export destinations compared to 33 destinations in 2022. Nigeria was the leading sisal Fibre exports destination, with a total of 6,147 MT representing a market share of 27.5 percent of all Fibre exports. The five leading sisal exports destinations in total accounted for 64 percent of the total exports. South Sudan was recorded as an emerging market for sisal export in the period under review. For more details, refer to Table 78.

**Table 78: Sisal Exports Volumes and Value 2022 - 2023**

Destination	Volumes (MT)		Total value in USD millions		% of Volumes by Destinations in 2023
	2022	2023	2022	2023	
Nigeria	11,224.20	6,147.00	19.90	10.47	27.5
China	2,396.40	2,675.00	4.04	4.52	12.0
Saudi Arabia	3,697.00	2,245.00	7.01	4.14	10.0
Morocco	1,051.00	2,012.50	1.81	3.43	9.0
Ghana	3,385.95	1,227.70	5.06	1.97	5.5
Senegal	477.00	1164.00	0.92	2.02	5.2
Spain	1360.00	865.40	2.49	1.35	3.9
Ivory Coast	394.00	782.50	0.63	1.30	3.5
Philippines	831.00	713.00	1.35	1.16	3.2
Benin	242.10	657.00	0.40	1.20	2.9
Belgium	528.00	552.00	1.12	1.11	2.5
Togo	451.50	532.00	0.76	0.96	2.4
Egypt	804.30	447.50	1.43	0.82	2.0
India	392.00	418.00	0.73	0.76	1.9
Libya	138.90	352.00	0.24	0.63	1.6
Algeria	0.00	324.00	0	0.58	1.4

Destination	Volumes (MT)		Total value in USD millions		% of Volumes by Destinations in 2023
	2022	2023	2022	2023	
Mauritania	159.00	312.10	0.24	0.50	1.4
UAE	230.00	218.00	0.44	0.43	1.0
Guinea	55.00	192.00	0.10	0.33	0.9
Jordan	54.00	162.00	0.12	0.29	0.7
Syria	82.00	84.00	0.17	0.16	0.4
Mali	28.00	56.00	0.06	0.10	0.3
Iraq	146.00	54.00	0.28	0.11	0.2
Germany	101.50	51.00	0.21	0.10	0.2
Gambia	28.00	28.00	0.057		0.053
Italy	175.00	25.50	0.298		0.042
Japan	154.00	25.00	0.259		0.043
Sri Lanka	0.00	14.00	0.000		0.028
South Sudan	0.00	12.00	0.000		0.020
Slovenia	0.00	10.20	0.000		0.011
Indonesia	112.00	0.00	0.193	0.00	0.0
Israel	55.00	0.00	0.099	0.00	0.0
Burkina Faso	28.00	0.00	0.055	0.00	0.0
Chad	28.00	0.00	0.055	0.00	0.0
Yemen	28.00	0.00	0.049	0.00	0.0
Bangladesh	25.00	0.00	0.043	0.00	0.0
South Africa	25.00	0.00	0.053	0.00	0.0
<b>Total</b>	<b>28,886.85</b>	<b>22,358.40</b>	<b>50.67</b>	<b>38.64</b>	<b>100</b>

Source: AFA - Fibre Crops Directorate

### 5.2.2.5. Domestic Market for Sisal

The prices for sisal Fibre in the domestic market in the period under review ranged between KES 85-100 per Kg of unwashed hand decorticated sisal (UHDS).

A total of 553,401.60 MT of ropes, twines and coffee drying cloth were manufactured in 2023. Twine had the highest contribution of 42.8 percent at 236,751.40 MT valued at KES 78.12 million and Tow, Yarn and Ropes had the least contribution of 5.6 percent at 30,911.70 MT valued at KES 3.09 million. For more details, refer to Table 79.

**Table 79: Volume and Value of Weaved Products**

Product	Volumes (MT)	Value (KES)	% Contribution of Volumes by Product
Twine	236,751.40	78,127,962	42.8
Ropes	237,160.80	78,263,064	42.9
Coffee Drying Cloth	48,577.70	16,030,641	8.8
Tow, Yarn	30,911.70	3,091,170	5.6
<b>Total</b>	<b>553,401.60</b>	<b>175,512,837.00</b>	<b>100</b>

Source: AFA - Fibre Crops Directorate

### 5.3. Challenges and Interventions

**Table 80: Challenges and Interventions in the Sisal Subsector**

Challenges	Ongoing interventions	Proposed interventions
Inadequate research and extension services;	Collaboration with County government to establish demonstration plots	Capacity building of extension service providers
Lack of readily available planting materials	Collaborating with Sisal Estates	Establishment of private and sector driven sisal nurseries
High cost of value addition equipment for smallholder sisal processing (especially decortication, brushing and baling)	Promoting processing of sisal with decorticators among smallholder growers	Establishing backward linkages with licensed exporters and dealers in sectors.
Weak and ineffective farmer organizations	Sensitization of grassroots organization	Enhance capacity through co-operative model

# FOOD CROPS

- AGRICULTURE PERFORMANCE
  - MARKET PERFORMANCE
- CHALLENGES & INTERVENTIONS

## CHAPTER 6

## CHAPTER 6: FOOD CROPS

### Introduction

The area under food crops increased from 4.9 million Ha in 2022 to 5.5 million Ha in 2023. The Production also increased from 9.7 million MT to 11.8 million MT, a 22 percent increase. The value of assorted food crops in Kenya rose from KES 501.2 billion in 2022 to KES 563.5 billion in 2023. This was attributed to favorable weather conditions, national and county government's fertilizer subsidies which improved crops productivity.



### 6.1 Maize

Maize is Kenya's main staple food crop, immensely contributing to food security. The crop is mostly grown in Uasin Gishu, Trans Nzoia, Narok, West Pokot, Elgeyo Marakwet, Laikipia, Nakuru, Bungoma, Kakamega and Nandi counties under large scale farming. Different varieties are grown in different counties depending on the altitude and the rainfall distribution.

#### 6.1.1. Agriculture Performance

The area under the crop increased from 2.17 million Ha in 2022 to 2.55 million Ha in 2023, translating to 18 percent rise. The increase in area could be attributed to availability of subsidized fertilizer that encouraged the more farmers to plant maize. The production in 2023 rose to 4.37 million MT from 3.08 million MT in 2022. The yields increased to 22.8 bags per hectare in 2023 from 16 bags per hectare recorded in 2022 as a result of favorable weather conditions.

### 6.1.2. Market Performance

The overall value of locally produced maize, increased from KES 154.5 billion in 2022 to KES 199 billion in 2023, largely attributed to the good farm gate prices experienced. The average wholesale price in the period under review rose by KES 1,119 from KES 4,799 in 2022 to KES 5,918. The increase in price was ascribable to inflation and the high demand in local consumption.

The imports reduced from 762,150 MT in 2022 to 488,535 MT in 2023 due to the increase in maize production. The exports reduced from 1,100 MT in 2022 to 124.75 MT in 2023. For more details, refer to Table 81.

**Table 81: Maize Production and Market Performance 2018 - 2023**

Year	2018	2019	2020	2021	2022	2023
Area (Ha)	218,9113	2,196,136	2,171,695	2,168,603	2,156,376	2,552,931
<b>Production</b>						
90 kg bag (dry maize)	44,601,416	44,004,283	42,168,559	36,826,994	34,332,233	48,626,544
MT (dry maize)	4,014,127	3,960,385	3,795,170	3,314,430	3,089,901	4,376,389
Est. 115 kg bags (green maize)	3,453,247	3,099,432	2,970,133	2,593,902	2,403,256	
MT (green maize)	310,792	356,434.70	341,565	298,299	276,374	481,403
Yield (90 kg bag/Ha)	22	20	19	17	16	23
Consumption (MT)	3,324,299	3,201,057	3,368,337	3,429,904	3,258,069	3,341,613
Price (KES)						
Average Farm Gate (90 kg bag)	1,873	2,576	2,798	2,600	4,500	4,094
Average Wholesale (90 kg bag)	2,036	3,068	2,885	2,724	4,799	5,918
Total Value of Locally Produced Maize (KES billion)	98.5	121.3	126.3	95.8	154.5	199
Import (MT)	182,000	188,000	367,000	474,000	762,150	488,535
Export (MT)	0	70	12	4,000	1,100	124.75

Source: State Department for Crops Development & Agricultural Research (SDCDAR) and Kenya Revenue Authority.



## 6.2 Wheat

Wheat is a versatile crop mostly grown in Meru, Laikipia, Nakuru, Uasin Gishu and Narok counties. Wheat farming has evolved over the years, with farmers adopting modern farming techniques.

### 6.2.1. Agriculture Performance

The area under the crop reduced by 18,650 Ha from 123,090 Ha in 2022 to 104,440 Ha in 2023, a 15.2 percent drop attributed to high cost of wheat production compared to other competing enterprises.

The country's production during the period under review increased by 38,792 MT from 270,700 MT in 2022 to 309,492 MT, a 14.3 percent increase. This was as a result of increased productivity and favorable weather conditions experienced in the period under review.

The productivity for a 90 Kg bag per Ha increased by 9 bags from 24 bags in 2022 to 33 bags in 2023, attributed to favorable rainfall and good agricultural practices by farmers.

### 6.2.2. Market Performance

The value of locally produced wheat increased from KES 10.6 billion in 2022 to KES 14.30 billion in 2023 due to good farm gate prices set by the government through the wheat purchase program involving all the value chain payers and high demand for wheat products. The local average retail price was KES 65 per Kg while the wholesale price traded at a minimum price of KES 5,200 per 90Kg bag for grade one, KES 5,100 for grade two and willing buyer willing seller basis for grade three and below.

The imports of wheat increased by 327,832 MT from 1,662,100 MT in 2022 to 1,989,932 MT in 2023, translating to a 21.9 percent rise due to increased local demand to meet the consumption deficit.

The exports of wheat increased from 1,970 MT in 2022 to 8,712 MT in 2023, resulting to 342 percent rise during the year under review. This was as a result of good prices in the export destinations. For more details, refer to Table 82.

**Table 82: Wheat Production and Market Performance 2018-2023**

Year	2018	2019	2020	2021	2022	2023
Area (Ha)	133,147	139,307	132,231	134,070	123,090	104,440
<b>Production</b>						
90 Kg bag	4,560,667	3,552,440	4,496,611	3,878,405	3,007,778	3,438,796
MT	410,460	319,720	404,695	349,056	270,700	309,492
Yield (90 Kg/Ha)	34	26	34	29	24	33
Consumption (MT)	1,975,106	1,988,175	2,001,616	2,038,202	2,171,727	2,194,991
Price (KES)						
Average Farm Gate (90 Kg bag)	2,761	2,780	2,941	3,168	3,554	4,133
Average Wholesale (90 Kg bag)	3,200	3,863	4,031	4,593	6,569	7,358
Total Value of Locally Produced Wheat (KES billion)	11	10	13	12.3	10.6	14.3
Import (MT)	1,512,034	1,998,900	1,835,983	2,128,153	1,662,100	1,989,932
Export (MT)	2,282	2,032	155,540	139,791	1,970	8,712

Source: State Department for Crops Development & Agricultural Research (SDCDAR) and Kenya Revenue Authority.



## 6.3 Barley

Barley is a cereal grain and a member of the grass family, mainly grown in temperate regions. The crop is mainly used by the brewing industries and can also be used as fodder for animals. The crop is mainly grown in Narok, Nakuru, Meru and Laikipia counties.

### 6.3.1. Agriculture Performance

The area under the crop increased by 5,721 Ha from 7,512 Ha in 2022 to 13,233 Ha in 2023, resulting to a 76 percent rise.

The country's production during the period under review rose by 12,582 MT from 20,079 MT in 2022 to 32,661 MT, translating to 63 percent increase attributed to the favorable rainfall distribution in most of the barley producing regions.

### 6.3.2. Market Performance

The total value of locally produced barley increased by KES 0.45 billion from KES 0.84 billion in 2022 to KES 1.29 billion in 2023 as a result of increased local production.

The barley imports decreased by 8.36 MT from 10 MT in 2022 to 1.64 MT in 2023 as a result of high local production. Refer to Table 83 for more details

**Table 83: Barley Production and Market Performance 2018 - 2023**

Year	2018	2019	2020	2021	2022	2023
Area (Ha)	23,474	13,430	11,051	13,319	7,512	13,233
<b>Production</b>						
90 Kg bag	869,633	661,522	388,366	367,967	223,100	362,900
MT	78,267	59,537	34,953	33,117	20,079	32,661
Yield (90 Kg/Ha)	37	49	35	27	30	27
<b>Price (KES)</b>						
Average Farm Gate (90 kg bag)	2,127	2,890	2,955	3,016	3,780	3,307
Total Value of Locally Produced Barley (KES billion)	1.85	1.91	1.15	1.11	0.84	1.29
Imports (MT)	-	110	8,000	1,600	10	1.64

Source: State Department for Crops Development & Agricultural Research (SDCDAR) and Kenya Revenue Authority.



## 6.4. Rice

Rice can be considered as an alternative cereal to supplement maize as it is preferred by households in ASAL regions. In Kenya, 80 percent of the rice is grown in irrigated ecosystems that the government and local people have created. The remaining 20 percent is grown in rain-fed conditions. Rice is majorly grown in Mwea Irrigation Scheme in Kirinyaga County and in other areas such as Ahero in Kisumu County, Bunyala in Busia County and Garissa County.

### 6.4.1. Agriculture Performance

The area under the crop increased by 1,740 Ha from 29,931 Ha in 2022 to 31,671 Ha in 2023, leading to 6 percent rise attributed to government intervention together with development partners in investments on mechanization and inputs to improve efficiency in land operations. The country's rice production during the period under review increased by 28,774 MT from 122,045 MT in 2022 to 150,819 MT, a 24 percent increase, as a result of the increase more acreage under irrigation.

### 6.4.2. Market Performance

The total value of locally produced rice increased by KES 1.55 billion from KES 6.6 billion in 2022 to KES 8.15 billion in 2023 a 23.5 percent rise, attributed to high local production. The imports of rice increased by 266,730 MT from 664,200 MT in 2022 to 930,930 MT in 2023 a 40.2 percent rise. This was attributed to the increase in local demand for the commodity. The rice exports increased by 1,176 MT from 196 MT in 2022 to 1,372 MT in 2023 accounting for 60 percent rise. For more details, refer to Table 84.

**Table 84: Rice Production and Market Performance 2018-2023**

Year	2018	2019	2020	2021	2022	2023
<b>Area (Ha)</b>	21,949	27,383	32,324	31,591	29,931	31,671
<b>Production</b>						
<b>90 Kg bag</b>	1,225,822	1,143,607	1,444,589	2,009,889	1,356,056	1,675,767
<b>MT</b>	110,324	112,605	160,585	180,890	122,045	150,819
<b>Yield (90 Kg/Ha)</b>	47	49	51	44	45	53
<b>Price (KES)</b>						
<b>Average Farm Gate (50 Kg bag)</b>	3,206	3,515	3,185	2,481	2,704	2,692
<b>Average Wholesale price (50 Kg bag)</b>	6,500	6,000	6,000	5,000	6,129	6,924
<b>Total Value of Locally Produced Rice (KES billion)</b>	7.07	5.99	6.10	8.98	6.6	8.15
<b>Import (MT)</b>	435,390	597,230	587,984	598,271	664,200	930,930
<b>Export (MT)</b>	423	892	402	342	196	1,372

Source: State Department for Crops Development & Agricultural Research (SDCDAR) and Kenya Revenue Authority.



## **6.5 Sorghum**

Sorghum is a conventional high-value crop mainly grown in western, northern rift valley, eastern and some parts of central Kenya. The crop contains numerous minerals such as vitamin B, potassium, phosphorus, zinc and iron.

### ***6.5.1. Agriculture Performance***

The area under the crop increased by 5,876 Ha from 214,224 Ha in 2022 to 220,100 Ha in 2023, a 3 percent rise. The increase was attributed to contractual farming by EABL to grow the crop as an alternative use to barley.

The country's production during the period under review increased by 18,968 MT from 122,045 MT in 2022 to 150,819 MT. The average productivity for a 90 Kg bag per Ha increased by 1 bag from 9 bags in 2022 to 10 bags in 2023. This was as a result of good rainfall experienced during the season and the use of certified seeds.

### 6.5.2. Market Performance

The average farm gate price of a 90 Kg bag increased by KES 217 from KES 4,338 in 2022 to KES 4,555 in 2023. The rise was attributed to high demand of the commodity in the local market.

The total value of locally produced sorghum increased by KES 1 billion from KES 8.8 billion in 2022 to KES 10.2 billion in 2023. This was attributed to increase in farm gate prices.

The sorghum imports increased from 54,460 MT in 2022 to 76,289 MT in the period under review occasioned by the high demand sorghum.

Exports increased by 23,445 from 5,010 MT in 2022 to 28,455 MT in 2023 a 468 percent rise as a result of favorable international prices. For more details, refer to Table 85.

**Table 85: Sorghum Production and Market Performance 2018-2023**

Year	2018	2019	2020	2021	2022	2023
Area (Ha)	228,733	240,200	219,657	197,403	214,224	220,100
<b>Production</b>						
90 kg bag	2,284,556	3,486,559	3,513,956	1,464,100	2,028,411	2,239,144
MT	205,610	313,790	316,256	131,769	182,557	201,525
Yield (90 kg/Ha)	10	15	16	7	9	10
<b>Price (KES)</b>						
Average Farm Gate (90 kg bag)	2,714	3,360	2,873	3,223	4,338	4,555
Average Wholesale (90 kg bag)	4,147	4,411	4,260	4,495	6,102	6,914
Total Value of Locally Produced Sorghum (KES billion)	6.20	10.80	10.10	4.72	8.8	10.20
Imports (MT)	53,800	89,600	33,200	97,400	54,460	76,289
Exports (MT)	75,000	57,800	77,200	63,040	5,010	28,455

Source: State Department for Crops Development & Agricultural Research (SDCDAR) and Kenya Revenue Authority.



## 6.6 Millet

The main varieties of millet grown in the country are the pearl millet and finger millet. Pearl millet is mainly grown in Kitui, Tharaka Nithi, Meru, Embu, Machakos and Makueni counties. Finger millet is grown mainly in Baringo, Kisii, Nyamira, Bomet and Busia counties.

### 6.6.1. Agriculture Performance

The area under the crop increased by 23,726 Ha from 106,022 Ha in 2022 to 129,748 Ha in 2023, an increase of 22 percent. The country's production during the period under review increased by 33,071 MT from 62,996 MT in 2022 to 96,067 MT due to favorable weather conditions in the millet growing zones.

### 6.6.2. Market Performance

The total value of locally produced millet increased by KES 1.2 billion from KES 5.55 billion in 2022 to KES 6.74 billion in 2023, a 21 percent rise.

Millet imports increased by 1,456 MT from 16 MT in 2022 to 1,472 MT due to increased domestic demand of millet during the period under review. Refer to Table 86 for more details.

**Table 86: Millet Production and Market Performance 2018 - 2023**

Year	2018	2019	2020	2021	2022	2023
Area (Ha)	115,200	142,185	118,411	125,439	106,022	129,748
<b>Production</b>						
90 kg bag	922,822	1,496,811	1,732,311	693,000	699,956	1,067,656
MT	83,054	134,713	155,908	62,333	62,996	96,067
Yield (90 kg/Ha)	8	11	15	6	7	8
<b>Price (KES)</b>						
Average Farm Gate (90 kg bag)	4,335	5,460	5,148	6,850	7,802	6,314
Average Wholesale price (90 kg bag)	7,102	6,688.30	6,656	8,210	9,153	8,818
Total Value of Locally Produced Millet (KES billion)	4.00	8.20	8.90	4.75	5.55	6.74
Imports (MT)	7,500	6,900	4,600	10,000	16	1,472

Source: State Department for Crops Development & Agricultural Research (SDCDAR) and Kenya Revenue Authority.



## 6.7 Beans

Beans is considered as one of the most important legumes worldwide due to its nutritious nature and nitrogen-fixing ability. It is one of the major food crops grown in almost all the regions in the country.

### 6.7.1. Agriculture Performance

The area under the crop increased by 37,901 Ha from 1,252,315 Ha in 2022 to 1,290,216 Ha in 2023, representing 3 percent increase. The country's beans production increased by 238,963 MT from 849,378 MT in 2022 to 1,088,341 MT in 2023 attributed to increased acreage and favorable rainfall.

The average yield in 90 Kg bag per Ha increased from 7.5 bags in 2022 to 9.4 bags in 2023, a rise attributed to favorable rainfall and good agricultural practices by farmers.

### 6.7.2. Market Performance

The average farm gate price of a 90 Kg bag increased by KES 1,094 from KES 9,000 in 2022 to KES 10,094 a 12 percent rise attributed to high local demand of the crop.

The total value of locally produced beans increased by KES 32 billion from KES 81.1 billion in 2022 to KES 113.1 billion in 2023 ascribed to the increase in average farm gate prices.

The imports of beans increased from 48,400 MT in 2022 to 53,676 MT in 2023. This was attributed to the high demand of beans locally. For more details, refer to Table 87.

**Table 87: Beans Production and Market Performance 2018 - 2023**

Year	2018	2019	2020	2021	2022	2023
Area (Ha)	1,149,985	1,188,678	1,147,709	1,171,869	1,252,315	1,290,216
<b>Production</b>						
90 kg Bag	8,510,856	8,310,456	8,604,067	7,452,610	9,437,533	11,203,788
MT	765,977	747,941	774,366	670,735	849,378	1,088,341
Yield (90 kg/Ha)	7.4	7.1	7.5	6.4	7.5	9.4
<b>Price (KES)</b>						
Average Farm gate (90 kg bag)	4,966	6,210	6,030	6,341	9,000	10,094
Average Wholesale (90 kg bag)	5,810	6,661	7,447	7,936	9,189	13,075
Total Value of Locally Produced Beans (KES billion)	42.32	51.60	51.80	47.34	81.10	113.10
Imports (MT)	76,500	31,100	48,100	138,100	48,400	53,676

Source: State Department for Crops Development & Agricultural Research (SDCDAR) and Kenya Revenue Authority.



## 6.8 Cowpeas

Cow peas is widely grown for both grain and the use of the leaves as a vegetable depending on the region it is produced. In the upper and south eastern lowlands, the legume is grown for both grain and the leaves while in other parts of the country, the crop is grown for use as a vegetable.

### 6.8.1. Agriculture Performance

The area under the crop increased from 194,185 Ha in 2022 to 249,855 Ha in 2023 representing 29 percent increase attributed to favorable weather. The country's production during the period under review decreased from 145,666 MT in 2022 to 142,695 MT in 2023 due to enhanced rains in the 2023 crop year which favored more of vegetative growth than grain. The yields increased from 6.3 bags per Ha to 8.3 bags per Ha.

## 6.8.2. Market Performance

The average farm gate price of a 90 Kg bag decreased from KES 6,400 in 2022 to KES 4,971 in 2023. The average wholesale price increased from KES 7,672 in 2022 to KES 10,859 in 2023 resulting to 41.5 percent rise attributed to the low production levels.

The total value of locally produced cowpeas decreased from KES 9.3 billion in 2022 to KES 7.9 billion in 2023 representing 17.7 percent drop. This could be attributed to decrease in farm gate prices locally.

The cowpeas imports decreased from 83.9 MT in 2022 to 12.16 MT in 2023 attributed to low farm gate prices hence the imports opting for the locally produced. For more details, refer to Table 88.

**Table 88: Cowpeas Production and Market Performance 2018 - 2023**

Year	2018	2019	2020	2021	2022	2023
Area (Ha)	258,732	242,274	239,131	235,734	194,185	249,855
<b>Production</b>						
<b>90 kg bag</b>	1,990,078	2,471,045	2,935,111	1,655,788	1,618,511	1,585,767
<b>MT</b>	179,107	222,394	264,160	250,060	145,666	142,695
<b>Yield (90 kg/Ha)</b>	7.7	10.2	12.3	11.8	6.3	8.3
<b>Price (KES)</b>						
<b>Average Farm gate (90 kg bag)</b>	3,354	5,430	5,269	5,354	6,400	4,971
<b>Average Wholesale (90 kg bag)</b>	6,598	6,815	7,187	8,427	7,672	10,859
<b>Total Value of Locally Produced Cowpeas (KES billion)</b>	6.7	13.4	15.4	8.9	9.3	7.9
<b>Imports (MT)</b>	0	0.3	1.1	136	83.9	12.16

Source: State Department for Crops Development & Agricultural Research (SDCDAR) and Kenya Revenue Authority.



## **6.9 Green grams**

Green grams production continues to gain popularity among small scale farmers mainly in Kitui, Makueni, Tharaka Nithi, Meru and Machakos counties as a cash crop and drought tolerant crop. The crop is mainly grown under rain fed conditions with minimal inputs.

### **6.9.1. Agriculture Performance**

The area under the crop increased from 229,820 Ha in 2022 to 296,283 Ha in 2023 and production increased from 149,577 MT in 2022 to 168,397 MT in 2023 due to the provision of certified seeds to farmers. The yields decreased from 7.2 (90 kg bags) per Ha in 2022 to 6.3 (90 kg bags) per Ha in 2023 due to excess rain that accelerated fungal disease infestation to the crops.

### **6.9.2. Marketing Performance**

The value of locally produced green grams in 2023 was KES 12.7 billion compared to KES 13.3 billion in 2022. The decrease in value was attributed to decline in the farm gate prices. The farm gate and wholesale prices reduced due to the increased imports marketed at low prices. The imports and exports of green grams in the period under review increased due to diversification of the markets promoted by the government by opening up new markets. For more details, refer to Table 89.

**Table 89: Green Grams Production and Market Performance 2018 - 2023**

Year	2018	2019	2020	2021	2022	2023
Area (Ha)	362,939	305,323.10	285,071	272,401	229,820	296,283
<b>Production</b>						
90 kg bag	2,295,767	2,065,794	2,356,133	1,533,308	1,661,967	1,871,077
MT	206,619	185,921	212,052	138,056	149,577	168,397
Yield (90 kg/Ha)	6.3	6.8	8.3	5.6	7.2	6.3
<b>Price (KES)</b>						
Average Farm gate (90 kg bag)	4,246	9,160	7,010	6,512	9,063	6,786
Average Wholesale (90kg bag)	7,716	102,42.7	8,672	9,925	11,223	11,212
Total Value of Locally Produced Green grams (KES billion)	9.7	18.9	16.5	10.1	13.3	12.7
Imports (MT)	660	14,470	2,160	304	1,852	5,440.69
Exports (MT)	24,466	586	8,756	19,230	4,656	8,730.83

Source: State Department for Crops Development & Agricultural Research (SDCDAR) and Kenya Revenue Authority.



## 6.10 Pigeon Peas

The crop is cultivated in various regions across the country, with notable production in semi-arid areas like Eastern and Coast regions. Pigeon pea farming in Kenya has evolved from a traditional crop grown for subsistence into a commercially viable and economically significant agricultural activity. A few farmers grow the short maturing varieties otherwise known as 'Mbaazi' under irrigation for the fresh market as it fetches better prices than the dry grain.

### 6.10.1. Agriculture Performance

The area under pigeon peas production increased from 147,144 Ha in 2022 to 150,533 Ha in the year under review. The production decreased from 96,102 MT in 2022 to 91,929 MT in 2023 due to unfavorable weather conditions experienced in pigeon peas growing zones which resulted to a decline in productivity from 7.3 (90kg bags) per Ha in 2022 to 6.7 (90Kg bags) per Ha in 2023.

### 6.10.2. Market Performance

The value of locally produced pigeon peas in 2022 was KES 7.3 billion compared to KES 5.7 billion in 2023 was attributed to low production and reduced farm gate prices. The average wholesale prices increased from KES 8,752 in 2022 to KES 11,860 in 2023 due to high demand for urban population.

The import of pigeon peas reduced from 7,645 MT in 2022 to 3,277 MT in 2023. However, the exports increased significantly from 99 MT in 2022 to 9,499 MT in 2023 attributed to development of new markets with favorable prices. For more details, refer to Table 90.

**Table 90: Pigeon Peas Production and Market Performance 2018 - 2023**

Year	2018	2019	2020	2021	2022	2023
<b>Area (Ha)</b>	108,326	136,388	133,525	126,601	147,144	150,533
<b>Production</b>						
<b>90 kg bag</b>	921,589	1,194,989	1,373,637	1,155,649	1,067,800	1,021,433
<b>MT</b>	82,943	107,549	123,627	104,008	96,102	91,929
<b>Yield (90 kg bag /Ha)</b>	9	9	10	9	7.3	6.7
<b>Price (KES)</b>						
<b>Average Farm gate (90 kg bag)</b>	4,695	5,718	5,171	5,111	7,802	5,611
<b>Average Wholesale (90 kg bag)</b>	4,500	6,300	5,925	5,878	8,752	11,860
<b>Total Value of Locally Produced Pigeon Peas (KES billion)</b>	4	7	7	6	7.3	5.7
<b>Imports (MT)</b>	1,142	31,222	6,145	573	7,645	3,277
<b>Exports (MT)</b>	11,881	6,258	16,648	532	99	9,499

Source: State Department for Crops Development & Agricultural Research (SDCDAR) and Kenya Revenue Authority.



## **6.11 Sweet Potatoes**

Sweet potato is a highly productive crop that can be grown on marginal land with minimal land and inputs, giving it potential to play a greater role in Kenyan food systems. It's widely grown on a small scale mainly on subsistence basis but recently farmers have started growing the crop as a cash crop.

### ***6.11.1. Agriculture Performance***

The area under the crop increased from 48,740 Ha in 2022 to 54,405 Ha in 2023. Similarly, production surged from 596,791 MT in 2022 to 669,141 MT in 2023. The productivity increased slightly from 11.4 in 2022 to 12.3 in 2023. The positive growth in both the area and production was mainly attributed to the rising demand for sweet potatoes in the country, with entrepreneurs venturing in sweet potato value addition.

### ***6.11.2. Market Performance***

The total value of locally produced sweet potatoes increased marginally from KES 21.07 billion in 2022 to KES 21.14 billion in 2023 due to the increased production. The average farm gate prices however reduced as a result of increased supply of sweet potatoes. The average wholesale prices for sweet potatoes increased as a result of increased demand in the urban centers during the period under review. For more details, refer to Table 91.

**Table 91: Sweet Potato Production and Market Performance 2018 - 2023**

Year	2018	2019	2020	2021	2022	2023
Area (Ha)	64,301	57,535	54,007	53,043	48,740	54,405
<b>Production</b>						
MT	871,010	976,691	685,687	674,348	596,791	669,141
Yield (MT/Ha)	13.5	16.9	12.7	12.7	11.4	12.3
Price (KES)						
Average Farm gate (98 kg bag)	2,115	3,218	3,212	2,940	3,492	3,096
Average Wholesale (98 kg bag)	2,985	3,478	3,655	3,832	5,030	6,151
Total Value of Locally Produced Sweet Potatoes (KES billion)	18.8	32	24.5	20	21.07	21.14
Imports (MT)	-	-	-	-	7.18	0.75
Exports (MT)	-	-	-	-	96.88	229.66

Source: State Department for Crops Development & Agricultural Research (SDCDAR) and Kenya Revenue Authority.



## 6.12 Cassava

Cassava is the second most important root and tubers crop after Irish potato in Kenya. Despite its high production in the coastal and western regions, utilization is limited to human consumption. Cassava, a drought resistant crop can be grown in marginal lands, requires low inputs and is tolerant to pests and diseases.

### 6.12.1. Agriculture Performance

The area under cassava increased from 72,053 Ha in 2022 to 76,012 Ha in 2023. Similarly, cassava production increased from 1,085,417 MT in 2022 to 1,187,789 MT in 2023. Additionally, productivity increased from 11.8 MT/Ha in 2022 to 15.6 MT/Ha in 2023. This was mainly attributed to the availability of good planting materials provided by the government and the good weather patterns throughout the year.

### 6.12.2. Market Performance

The total value of cassava increased from KES 37 billion in 2022 to KES 38.7 billion in 2023 due to increased production and a slight increase in the average farm gate prices. The average wholesale prices shot up from KES 4,852 in 2022 to KES 6,249 in 2023 due to increased demand for cassava in the urban markets. For more details, refer to Table 92.

**Table 92: Cassava Production and Market Performance 2018 - 2023**

Year	2018	2019	2020	2021	2022	2023
Area (Ha)	61,583	59,630	61,754	61,201	72,053	76,012
<b>Production</b>						
MT	945,991	845,342	898,110	711,890	1,085,417	1,187,789
Yield (MT/Ha)	15.4	14.1	14.5	11.6	11.80	15.6
Price (KES)						
Average Farm gate (100 kg bag)	1,982	2,838	3,273	3,366	3,200	3,257
Average Wholesale (99 kg bag)	2,544	3,237	3,483	4,348	4,852	6,249
Total Value of Locally Produced Cassava (KES billion)	18.9	24	32	15	37	38.7
Imports (MT)	-	-	-	-	61	191
Exports (MT)	-	-	-	-	-	4

Source: State Department for Crops Development & Agricultural Research (SDCDAR) and Kenya Revenue Authority



## **6.13 Irish Potato**

Potato is one of the key staple crops in Kenya and second most important crop in the country after maize. Potato is grown in a wide range of conditions, being produced mainly in two rainy seasons, the long rains (April - August) and short rains (September - January) with the length of the season varying from one region to another. However, with improved and newly introduced potato varieties having been registered in Kenya, production is done from 1200 - 3000 meters above sea level by both small-scale and large-scale producers. Large scale farmers also use irrigation thus helping ensure sustained and consistent supply of quality ware potato to the market especially for processing.

### **6.13.1. Agriculture Performance**

The area under Irish potato increased from 231,525 Ha in 2022 to 240,417 Ha in 2023. The production increased to 2.33 million MT in 2023 from 2.04 million MT in 2022 due to the easy access to certified seeds variety which have a high yielding capabilities. The productivity rose from 8.5 MT/Ha in 2022 to 9.7 MT/Ha as a result of favorable rainfall experienced in Irish potato growing regions in the period under review.

### **6.13.2. Market Performance**

The total value of Irish potatoes jumped from KES 71.7 billion in 2022 to KES 74.04 billion in 2023 as a result of increased production and good average farm gate prices in 2023. The average wholesale price reduced from KES 3,606 for 50Kg bag in 2022 to KES 2,956 for 50Kg bag in 2023. For more details, refer to Table 93.

**Table 93: Irish Potato Production and Market Performance 2018-2023**

<b>Year</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
<b>Area (Ha)</b>	217,315	212,976	176,252	214,600	231,525	240,417
<b>Production</b>						
<b>MT</b>	1,870,375	1,978,952	1,859,776	2,107,824	2,040,471	2,329,713
<b>Yield (MT /Ha)</b>	8.6	9.3	10.5	9.8	8.5	9.7
<b>Price (KES)</b>						
<b>Farm gate (per kg)</b>	42	31.8	24.8	21	35.8	31.8
<b>Wholesale (110 kg bag)</b>	3,115	2,898	2,453	1,788	3,606	2,956
<b>Total Value of Locally Produced Irish Potato (KES billion)</b>	40.8	62.9	46.1	48	71.7	74.04
<b>Imports (MT)</b>	-	-	-	-	18,153	17,377
<b>Exports (MT)</b>	-	-	-	-	-	78,745

Source: State Department for Crops Development & Agricultural Research (SDCDAR) and Kenya Revenue Authority.

## 6.14. Specific Challenges and Interventions in Food Crops Production and Trade

Despite the huge economic potential in the food crops subsector as discussed in many forums, the industry encounters myriads of challenges in the process of production and marketing. The table below shows the challenges and corresponding opportunities/interventions. For more details refer to Table 94.

*Table 94: Challenges and Interventions in the Food Crops Sub Sector*

S/ No.	Issue	Challenge	Interventions/Opportunity
1.	High costs of inputs and labour during production	Limited government input subsidy quota	Review of legislation governing agriculture sector subsidy program and favorable tax regime for agricultural input
		Low level of mechanization	Encourage use of machineries through favorable tax regime
2.	Poor market efficiencies	Disorganized marketing systems	Use of early market based warning systems to guide policy makers
			Enhanced border controls Marketing groups (farmers and processors) and strengthening of existing ones
3.	Low competitiveness of locally produced crops	High prices of locally produced crops than the imports	Enforcement of quality standards
		Poor quality of some locally produced food products	Improved efficiency along the value chains
4.	Unfavorable weather conditions	Weather patterns becoming unpredictable with shifts on the onset of rains, prolonged dry periods	Development and promotion of climate resilient technologies and mitigation of climate change effects
			Avail timely weather advisory services and early warning systems
			Introduce and implement food crops insurance
			Capacity building and promotion of newly improved released varieties

5.	Low and declining land productivity	Continuous cropping has led to decline in soil nutrient fertility	Provision of inorganic fertilizers through government subsidy programs based on soil analyses
			Capacity building and enhanced awareness on best soil management practices
6.	Poor infrastructure	Poor and limited access roads	Create a conducive to upgrade all infrastructures in food crops growing ecologies through public private partnerships
		Loss of irrigation water through seepage	
		Difficulties in use of machinery during land operations	
7.	Limited access to affordable credit facilities	Farming credit facilities are expensive due to high interest rates	Forming producer business groups and strengthening of existing farmer cooperative societies
		Lack of collateral	Food crops financing through commodity fund
		Lack of awareness	Creating awareness on the sources of credit
8.	Harvest and post-harvest losses	High grain loss during harvesting and post-harvest handling	Promote appropriate and efficient harvesting and post-harvest technologies
9.	Lack of reliable data	Lack of baseline data for some crops	Conduct food crops value chain analyses
		Poor data collection and reporting mechanisms	Develop a data collection and reporting mechanism
10.	Slow adaption of new improved varieties	Inadequate promotion of newly released varieties	Capacity building and promotion of newly improved released varieties
		Lack of consumer preferred traits in these varieties	Enhance seeds availability
		High cost of seeds and maintenance of the hybrid crops	Breeding for consumer desired traits to replace the old varieties through product profiling

# **HORTICULTURAL CROPS**

- AGRICULTURE PERFORMANCE
  - MARKET PERFORMANCE

## **CHAPTER 7**

## CHAPTER 7: HORTICULTURAL CROPS

### Introduction

The horticultural sub-sector is composed of four categories; flowers, vegetables, fruits, medicinal and aromatic plants. The sub-sector is a major contributor to food security, income earner to the majority of small-holder farmers, foreign exchange as well as supporting the growth of other sectors through provision of raw materials for agro-processing.

### 7.1. Agriculture Performance

In 2023, the area under horticulture increased from 455,086 Ha in 2022 to 464,522 Ha, representing a 2.1 percent rise. The production decreased by 332,932 MT a 4 percent drop while the value increased by KES 30.9 billion a 17 percent increase compared to the value achieved in 2022. The highest increase in value was from fruits and MAPs whose value increased by KES 25.4 billion and KES 5.8 billion. Refer to table 95, for more details.

*Table 95: Horticultural Crops Performance 2021-2023*

Crops Type	Area (Ha)			Volume (MT)			Value (KES) million			% of value 2023
	2021	2022	2023	2021	2022	2023	2021	2022	2023	
<b>Fruits</b>	212,913	225,525	233,695	4,143,370	4,214,620	4,241,602	82,454	86,262	111,677	51.8
<b>Exotic Vegetables</b>	158,567	164,478	177,024	3,137,522	3,209,165	2,886,971	72,650	78,230	79,370	36.8
<b>MAPs</b>	15,056	13,681	14,579	218,429	192,452	207,126	8,323	8,458	14,290	6.6
<b>ALV</b>	44,976	48,308	36,230	277,929	307,324	247,079	8,282	10,615	8,716	4.0
<b>Asian Vegetables</b>	3,284	3,094	2,994	43,804	37,917	45,768	1,458	1,172	1,605	0.7
<b>Total</b>	434,796	455,086	464,522	7,821,054	7,961,478	7,628,546	173,167	184,738	215,659	100

Source: AFA-Horticultural Crops Directorate

#### 7.1.1. Fruits

During the period under review, the area under fruit production increased by 3.6 percent from 225,525 Ha in 2022 to 233,695 Ha. Fruits volumes increased by 1 percent while the value increased by 29 percent from KES 86.3 billion in 2022, to KES 111.7 billion in 2023. The major leading fruits in order of value in 2023 were; Banana (35 percent), Avocado (23 percent), Mangoes (16 percent), Oranges (6 percent) and Water melon (5 percent). Refer to table 96, for more details.

Table 96: Summary of Fruits Production 2020-2023

Crop	Area (Ha)			Volume (MT)			Value (KES) million			% of Total Value 2023
	2021	2022	2023	2021	2022	2023	2021	2022	2023	
Banana	68,032	71,800	75,184	1,984,282	2,052,606	1,882,564	26,960	27,454	35,939	35
Avocado	26,561	25,669	31,373	432,969	441,593	632,953	12,391	12,595	23,722	23
Mango	56,668	66,235	65,870	738,321	758,374	736,663	12,246	13,614	16,546	16
Tree Tomato	1,617	1,495	1,581	47,615	29,373	33,441	2,125.3	1,769	1,946	2
Orange	12,109	12,097	14,534	121,184	130,320	171,505	2,728.5	3,425	5,971	6
Water Melons	21,405	18,083	11,480	349,630	337,496	251,529	8,227	9,420	5,142	5
Pawpaw	5,553	6,052	7,390	74,770	76,431	93,209	2,634.7	3,118	3,614	4
Pineapple	8,384	8,661	4,698	251,935	252,921	94,720	10,699	9,790	2,925	3
Lime	3,063	3,758	7,214	46,312	36,381	98,320	975.8	700	2,077	2
Passion Fruit	-	-	1,103	-	-	12,714	-	-	786	1
Lemons	2,405	4,629	4,788	22,019	31,210	31,628	655	1,033	1,031	1
Yellow Passion	1,207	723	1,754	11,605	6,298	15,891	394.0	456	915	1
Tangerine	1,133	1,653	3,543	10,655	12,563	28,094	215.6	632	1,207	1
Purple Passion	2,480	2,750	699	25,586	31,068	9,002	1,556.6	1,742	574	1
Others	2,296	-	-	26,487	-	-	644.3	-	-	0
Apple	-	91	84	-	460	295	-	48	25	0
Guavas	-	693	785	-	5,379	5,394	-	125	141	0
Sweet Melon	-	-	344	-	-	2,069	-	-	101	0
Strawberries	-	73	23	-	254	162	-	34	15	0
Pepino Melon	-	-	114	-	-	1,707	-	-	34	0
Pears	-	155	150	-	1,050	1,834	-	23	62	0
Thorn Melon	-	147	200	-	1,563	1,602	-	54	53	0
Grape Fruit	-	111	89	-	642	860	-	17	19	0
Plums	-	153	126	-	1,029	980	-	22	29	0
Peaches	-	6	168	-	21	677	-	1	28	0
Custard Apple	-	71	110	-	206	239	-	10	7	0
Loquats	-	391	112	-	7,169	528	-	175	13	0
Grapes	-	-	49	-	-	133	-	-	11	0
White Sapote	-	31	43	-	213	216	-	5	8	0
Goose Berries	-	-	27	-	-	123	-	-	6	0
Tamarind	-	-	60	-	-	5620	-	-	221	0
<b>Total</b>	<b>212,913</b>	<b>225,525</b>	<b>233,695</b>	<b>4,143,370</b>	<b>4,214,620</b>	<b>4,241,602</b>	<b>82,453</b>	<b>86,262</b>	<b>111,677</b>	<b>100</b>

Source: AFA-Horticultural Crops Directorate

### 7.1.1.1. Banana

The area under cultivation increased from 71,800 Ha in 2022 to 75,184 Ha in 2023 representing 4.7 percent increase while quantity was 1.9 million MT valued at KES 35 billion down from 2.1 million MT valued at KES 27.5 billion in the previous year representing 8.3 percent decrease in volume and 31 percent increase in value respectively. For more details, refer to Table 97.

**Table 97: Summary of Banana Production 2021-2023 by County**

County	Volume (MT)			Area (Ha)			Value (KES) million			% of Total Value 2023
	2021	2022	2023	2021	2022	2023	2021	2022	2023	
Meru	14,209	14,660	14,453	776,678	741,027	361,325	8,720	8,062	7,227	20.11
Murang'a	8,626	8,579	7,521	253,476	208,600	341,799	3,241	3,050	6,137	17.08
Taita Taveta	3,195	3,183	6,638	88,758	154,023	212,958	1,415	1,704	3,703	10.30
Kirinyaga	3,859	3,837	3,849	149,377	183,826	185,510	1,858	2,136	2,757	7.67
Kisii	5,332	5,762	7,426	111,767	115,903	161,036	1,206	1,411	1,800	5.01
Lamu	1,845	1,875	3,965	19,000	19,500	31,496	496	484.5	1,192	3.32
Kiambu	2,189	2,233	2,537	79,490	62,340	63,667	730	660.588	1,022	2.84
Kakamega	2,745	3,394	2,964	34,587	51,797	52,697	576	721.691	976	2.71
Siaya	1,873	2,255	1,939	21,006	21,774	24,902	539	313.64	972	2.70
Bungoma	2,235	2,430	1,865	42,132	50,200	37,179	775	634.565	885	2.46
Nyamira	2,842	4,118	2,437	40,450	52,670	37,161	817	975.689	771	2.15
Migori	1,614	1,729	1,785	32,280	37,017	35,141	479	518.512	768	2.14
Nyeri	1,333	1,143	1,126	32,556	36,219	49,845	411	415.388	739	2.06
Busia	-	-	870	-	-	18,390	-	0	612	1.70
Elgeyo Marakwet	-	-	358	-	-	17,939	-	0	599	1.67
Tharaka Nithi	1,564	1,541	1,810	56,443	53,553	46,405	756	679.324	591	1.65
Embu	1,121	1,130	1,438	36,580	36,090	30,715	386	517.66	588	1.63
Tana River	-	-	967	-	-	16,656	-	0	539	1.50
Kericho	530	548	481	14,321	15,228	12,056	448	463.499	508	1.41
Homa Bay	1,422	1,601	1,449	19,136	20,278	16,027	544	596.099	438	1.22
Vihiga	-	-	1,151	-	-	16,519	-	0	387	1.08
Nandi	-	-	677	-	-	12,447	-	0	328.976	0.92
Makueni	504	400	431	11,005	9,740	11,074	378	273.225	324.745	0.90
Trans Nzoia	-	-	392	-	-	13,535	-	-	315.131	0.88
Baringo	-	-	316	-	-	7,102	-	-	233.38	0.65
Machakos	-	-	1,496	-	-	8,994	-	-	216.868	0.60

County	Volume (MT)						Value (KES) million			% of Total Value 2023
	2021	2022	2023	2021	2022	2023	2021	2022	2023	
Kilifi	-	-	1,382	-	-	13,807	-	-	207,745	0.58
Bomet	-	-	155	-	-	5,540	-	-	172.4	0.48
Garissa	-	-	1,035	-	-	12,945	-	-	132.8	0.37
Kisumu	-	-	274	-	-	2,928	-	-	107.93	0.30
Mandera	-	-	246	-	-	1,898	-	-	90.4	0.25
Narok	-	-	301	-	-	5,324	-	-	84,476	0.24
Kitui	-	-	295	-	-	2,973	-	-	79.25	0.22
West Pokot	-	-	277	-	-	3,212	-	-	74,1982	0.21
Uasin Gishu	-	-	108	-	-	2,757	-	-	70,6675	0.20
Turkana	-	-	41	-	-	834	-	-	59,003	0.16
Nakuru	-	-	141	-	-	2,062	-	-	58,395	0.16
Kajiado	-	-	245	-	-	1,638	-	-	45.24	0.13
Mombasa	-	-	39	-	-	600	-	-	32,351	0.09
Laikipia	-	-	49	-	-	705	-	-	29,2983	0.08
Kwale	-	-	130	-	-	1,130	-	-	23.08	0.06
Nairobi	-	-	75	-	-	763	-	-	22.89	0.06
Isiolo	-	-	16	-	-	532	-	-	10.58	0.03
Samburu	-	-	9	-	-	57	-	-	3,877	0.01
Marsabit	-	-	13	-	-	172	-	-	3,424	0.01
Nyandarua	-	-	14	-	-	115	-	-	1,564	0.00
Wajir	-	-	14,453	-	-	0	-	-	0	0.00
Others	10,994	11,382	-	165,240	182,821	-	3,186	3,836	0	0.00
<b>Total</b>	<b>68,032</b>	<b>71,800</b>	<b>75,184</b>	<b>1,984,282</b>	<b>2,052,606</b>	<b>1,882,564</b>	<b>26,961</b>	<b>27,454</b>	<b>35,939</b>	<b>100</b>

Source: AFA-Horticultural Crops Directorate





### 7.1.1.2. Avocado

The area reported under avocado increased by 22 percent from 25,669 Ha in 2022 to current 31,373 Ha. The quantity produced increased by 43 percent from 441,594 MT in 2022 to 632,953 MT. Consequently, the value doubled from KES 12.6 billion in 2022 to KES 23.7 billion, representing an 88 percent rise. The increase can be attributed to the ongoing expansion in non-traditional areas due to high demand of the produce in the export markets. For more details, refer to Table 98.

**Table 98: Summary of Avocado Production 2020-2023 by County**

County	Area (Ha)				Volume (MT)				Value (KES) million				% of Total Value 2023
	2020	2021	2022	2023	2020	2021	2022	2023	2020	2021	2022	2023	
Murang'a	5,890	6,128	6,208	6,931	137,561	115,774	121,450	200,991	2,924	2,748	2,922	5,868	24.7
Kisii	2,641	2,746	1,891	2,053	73,102	67,177	60,743	74,904	748	1,544	1,416	2,726	11.5
Nakuru	1,553	1,589	2,069	2,893	24,501	21,037	30,594	39,484	701	945	1,566	2,509	10.6
Nyeri	1,352	669	685	1,981	34,199	9,890	11,171	33,556	311	420	398	1,422	6.0
Kiambu	1,676	1,770	1,830	2,050	51,584	33,531	33,982	44,559	989	1,237	1,167	1,366	5.8
Trans Nzoia	296	349	380	768	1,047	5,915	8,932	27,418	21	271	397	1,354	5.7
Kirinyaga	709	687	713	871	12,940	16,435	15,935	19,647	348	372	402	1,349	5.7
Nyamira	2,660	2,768	1,486	2,571	31,269	38,710	37,476	47,483	552	838	670	1,323	5.6
Nandi	368	368	405	511	7,661	7,661	4,818	16,747	258	258	194	920	3.9
Uasin Gishu	511	834	775	1,308	2,117	6,759	7,384	11,980	106	490	481	890	3.8

Meru	2,575	2,545	2,554	2,486	17,499	29,404	21,730	28,123	387	1,209	566	879	3.7
Embu	538	563	585	680	18,727	16,040	15,650	14,900	355	330	313	447	1.9
Baringo	-	-	-	250	-	-	-	6,445	-	-	0	332	1.4
Taita Taveta	-	-	-	404	-	-	-	10,095	-	-	0	303	1.3
Elgeyo Marakwet	-	-	-	310	-	-	-	5,056	-	-	0	251	1.1
Bungoma	273	466	-	235	7,300	8,648	-	5,210	105	147	0	204	0.9
Migori	-	-	-	526	-	-	-	7,228	-	-	0	185	0.8
Machakos	-	-	447	494	-	-	3670	4,370	-	-	194	176	0.7
Narok	-	-	-	429	-	-	-	4,207	-	-	0	124	0.5
Kajiado	-	-	-	371	-	-	-	2,740	-	-	0	118	0.5
Bomet	687	398	559	82	11,566	7,803	9,120	1,609	363	426	435	114	0.5
Nyandarua	-	-	-	139	-	-	-	2,658	-	-	0	89	0.4
Busia	-	-	-	217	-	-	-	2,486	-	-	0	88	0.4
Laikipia	-	-	-	471	-	-	-	2,126	-	-	0	84	0.4
Vihiga	-	-	-	168	-	-	-	1,978	-	-	0	83	0.4
Tharaka Nithi	-	-	-	134	-	-	-	2395	-	-	0	79	0.3
Makueni	-	-	-	387	-	-	-	3,751	-	-	0	76	0.3
Kakamega	-	-	-	611	-	-	-	2,488	-	-	0	67	0.3
Homa Bay	-	-	-	200	-	-	-	1,440	-	-	0	60	0.3
Kericho	-	-	-	166	-	-	-	1042	-	-	0	48	0.2
Kitui	-	-	-	359	-	-	-	1,701	-	-	0	45	0.2
Siaya	-	-	-	124	-	-	-	1,357	-	-	0	44	0.2
Kisumu	-	-	-	46	-	-	-	1,005	-	-	0	38	0.2
West Pokot	-	-	-	59	-	-	-	886	-	-	0	31	0.1
Nairobi	-	-	-	72	-	-	-	761	-	-	0	25	0.1
Marsabit	-	-	-	10	-	-	-	90	-	-	0	5	0.0
Turkana	-	-	-	2	-	-	-	20	-	-	0	1	0
Kwale	-	-	-	7	-	-	-	18	-	-	0	1	0.0
Others	5,413	4,681	5,082	-	61,651	48,184	58,938	-	1,375	1,157	1,473	0	0.0
<b>Total</b>	<b>27,142</b>	<b>26,561</b>	<b>25,669</b>	<b>31,373</b>	<b>492,724</b>	<b>432,968</b>	<b>441,594</b>	<b>632,953</b>	<b>9,543</b>	<b>12,392</b>	<b>12,594</b>	<b>23,722</b>	<b>100</b>

Source: AFA-Horticultural Crops Directorate



### 7.1.1.3. Mango

In 2023, mangoes contributed to 14.8 per cent of the total fruit value and 7.6 per cent of the total value of horticulture in the country. The area under production reduced by 1 percent from 66,234 Ha in 2022 to 65,870 Ha in 2023, similarly, the volume reduced by 3 percent from 758,372 MT to 736,663 MT. However, the value increased by 44 percent from KES 13.4 billion to KES 19.6 billion. For more details, refer to Table 99.

**Table 99: Summary of Mango Production 2020-2023 by County**

County	Area (Ha)				Volume (MT)				Value (KES) million				% of Total Value 2023
	2020	2021	2022	2023	2020	2021	2022	2023	2020	2021	2022	2023	
Makueni	21,985	20,414	22,422	19,904	159,622	281,398	245,367	199,626	3,033.54	4,163.47	3,614.95	5,988.78	30.5
Lamu	5,604	6,248	7,000	12,544	165,820	136,576	78,000	161,799	2,921.40	1,698.64	1,003.20	5,726.95	29.2
Kilifi	7,589	6,374	8,974	6,762	83,675	50,236	153,931	40,339	1,882.38	969.26	2,355.24	960.47	4.9
Meru	3,638	4,417	5,625	3,343	58,974	49,773	47,854	48,171	1,244.08	937.44	883.57	909.065	4.6
Tana River	1,255	1,243	2,486	3,715	36,526	19,764	39,292	65,305	509.82	533.52	1,081.44	893.05	4.6
Machakos	2,300	2,740	2,782	2,846	21,655	24,497	24,046	37,093	398.71	413.88	656.63	884.67	4.5
Siaya	1,435	1,059	2,550	2,130	12,028	10,360	19,531	21,055	342.78	220.53	674.31	639.92	3.3
Elgeyo Marakwet	1,086	895	985	676	14,630	11,716	20,000	23,400	351.5	262.49	463.6	520.5	2.7
Kwale	3,725	2,105	1,956	2,262	63,943	25,254	20,250	22,080	1,293.55	505.08	390.22	428.06	2.2
Kitui	3,696	2,701	2,651	3,132	53,090	27,010	13,255	15,963	883.99	539.75	293.58	310.11	1.6
Murang'a	959	945	931.8	950	13,056	10,183	11,555	13,523	198.48	165.39	203.68	304.34	1.6
Migori	519	494	504	583	7,544	7,211	7,871	9,792	207.36	236.56	204.13	222.51	1.1
Baringo	478	211	297	396	6,229	3,051	3,977	3,962	111.57	74.98	122.66	198.1	1.0
Tharaka Nithi	2,231	1,274	1,204	1,258	13,461	11,461	11,556	10,071	261.11	275.61	275.13	196.58	1.0

Kirinyaga	462	396	370	346	5,610	11,452	9,172	7,381	124.35	170.35	192.81	178.11	0.9
Embu	1,540	1,610	1,770	1,170	17,962	18,159	10,140	10,675	262.9	240.85	281.7	160.53	0.8
Kisumu	-	-	-	234	-	-	-	2,780	-	-	-	131.98	0.7
Bomet	-	-	-	18	-	-	-	2,790	-	-	-	111.6	0.6
Taita Taveta	482	272	423	439	7,822	4,236	7,200	7,744	106.02	55.14	87.18	100.04	0.5
Kisii	-	-	-	75	-	-	-	5,835	-	-	-	89.87	0.5
Kiambu	-	-	-	182	-	-	-	3,235	-	-	-	86.35	0.4
Busia	-	-	-	242	-	-	-	2,786	-	-	-	79.13	0.4
Garissa	640	642	649	654	7,608	7,862	6,656	7,334	101.61	106.5	92.9	77.66	0.4
Mandera	-	-	-	235	-	-	-	1,531	-	-	-	75.72	0.4
Homa Bay	-	-	-	226	-	-	-	1,847	-	-	-	58.46	0.3
Kakamega	-	-	-	387	-	-	-	1,321	-	-	-	34.78	0.2
Kajiado	-	-	-	97	-	-	-	1,155	-	-	-	33.8	0.2
Nakuru	-	-	-	59	-	-	-	835	-	-	-	28.98	0.1
Bungoma	173	239	181	102	5,711	3,603	3,034	1,246	106.1	68.08	106.19	27.745	0.1
Turkana	-	-	-	38	-	-	-	569	-	-	-	22.15	0.1
Laikipia	-	-	-	325	-	-	-	1,028	-	-	-	19.54	0.1
Trans Nzoia	-	-	-	27	-	-	-	535	-	-	-	18.42	0.1
Nyeri	-	-	-	137	-	-	-	619	-	-	-	15.33	0.1
West Pokot	-	-	-	181	-	-	-	1,210	-	-	-	13.013	0.1
Nandi	-	-	-	11	-	-	-	220	-	-	-	11	0.1
Vihiga	-	-	-	27	-	-	-	390	-	-	-	10.03	0.1
Mombasa	-	-	-	16	-	-	-	184	-	-	-	9.80	0.0
Nairobi	-	-	-	28	-	-	-	234	-	-	-	8.15	0.0
Kericho	-	-	-	42	-	-	-	154	-	-	-	6.65	0.0
Narok	-	-	-	37	-	-	-	276	-	-	-	4.38	0.0
Isiolo	-	-	-	14	-	-	-	420	-	-	-	4.2	0.0
Samburu	-	-	-	4	-	-	-	90	-	-	-	3.6	0.0
Marsabit	-	-	-	17	-	-	-	30	-	-	-	1.48	0.0
Uasin Gishu	-	-	-	1	-	-	-	30	-	-	-	1	0.0
Others	2,439	2,390	2,474		38,315	24,519	25,687		627.15	608.7	631.12	0	0.0
<b>Total</b>	<b>62,236</b>	<b>56,669</b>	<b>66,234</b>	<b>76,793</b>	<b>793,281</b>	<b>738,321</b>	<b>758,374</b>	<b>909,922</b>	<b>14,968</b>	<b>12,246</b>	<b>13,614</b>	<b>19,607</b>	<b>100</b>

Source: AFA-Horticultural Crops Directorate



#### 7.1.1.4. Watermelon

In the period under review the area under the fruit production was 11,480 Ha compared to 18,083 Ha in 2022. Over the years the area under production has been declining leading to reduction in quantity from 337,497 MT in 2022 to 251,529 MT in depicting 25 percent drop in 2023. The value of the fruit in 2023 was KES 4.1 billion representing a 45 percent drop from KES 9.4 billion in the previous year. The declining trend was due too much rainfall which led to spoilage at the farm level. For more details, refer to Table 100.

**Table 100: Summary of Watermelon Production 2020-2023 by County**

County	Area (Ha)				Volume (MT)				Value (KES) million				% of Total Value 2023
	2020	2021	2022	2023	2020	2021	2022	2023	2020	2021	2022	2023	
Migori	2,593	2,419	2,516	2,579	46,262	44,409	49,443	57,232	1,061	1,120	1,262	934.32	18.17
Wajir	-	-	-	800	-	-	-	20,836	-	-	-	540.56	10.51
Makueni	854	670	854	723	18723	20265	19,205	20,110	207	490	495	521.73	10.15
Kajiado	136	860	538	762	2566	21198	7,290	19,846	136	574	246	309.94	6.03
Mandera	351	420	439	439	3998	4642	4,483	4,263	202	285	175	293.56	5.71
Lamu	8,515	10,030	8,925	1,095	212,875	174,750	180,500	27,375	4,258	3,843	5,366	273.75	5.32
Homa Bay	246	225	249	330	5333	4253	4,609	6,895	109	90	104	231.28	4.50
Kirinyaga	194	206	177	193	4862	2969	2,021	7,456	99	81	71	213.20	4.15
Taita Taveta	489	464	359	413	12934	11929	9,304	8,972	202	253	200	195.96	3.81
Elgeyo Marakwet	184	365	364	391	4643	8560	8,266	11,931	233	219	217	185.64	3.61
Kitui	626	846	559	603	11955	12784	5,713	9,051	186	251	121	181.02	3.52

Baringo	-	-	-	289	-	-	-	11,220	-	-	-	173.00	3.36
Embu	-	-	-	461	-	-	-	6,942	-	-	-	141.09	2.74
Kisumu	186	183	177	183	4218	5169	3,895	4,963	124	138	120	124.24	2.42
Tana River	603	373	373	419	12114	7115	7,115	8,232	198	98	98	123.48	2.40
Meru	225	159	145	274	6624	3127	2,875	3,992	158	81	74	111.44	2.17
Machakos	366	385	458	391	2539	3881	3,389	4,622	67	102	141	102.88	2.00
Murang'a	110	181	185	187	2195	2624	2,822	2,895	60	52	77	77.36	1.50
Tharaka Nithi	99	118	99	103	1400	3191	3,172	3,421	34	69	74	74.39	1.45
Narok	86	49	58	47	2580	1470	1,064	1,350	64	71	33	63.00	1.23
Busia	-	-	-	187	-	-	-	2,203	-	-	-	62.08	1.21
Turkana	-	-	-	30	-	-	-	750	-	-	-	37.73	0.73
Kiambu	-	-	-	30	-	-	-	1,035	-	-	-	31.05	0.60
Kilifi	-	-	-	124	-	-	-	1,609	-	-	-	29.67	0.58
Bungoma	-	-	-	45	-	-	-	811	-	-	-	29.29	0.57
Siaya	-	-	-	46	-	-	-	907	-	-	-	21.79	0.42
Garissa	-	-	-	181	-	-	-	819	-	-	-	15.23	0.30
Isiolo	-	-	-	30	-	-	-	440	-	-	-	13.20	0.26
W.Pokot	-	-	-	78	-	-	-	782	-	-	-	12.10	0.24
Marsabit	-	-	-	14	-	-	-	224	-	-	-	5.34	0.10
Kakamega	-	-	-	15	-	-	-	142	-	-	-	4.07	0.08
Nakuru	-	-	-	8	-	-	-	80	-	-	-	3.60	0.07
Kericho	-	-	-	7	-	-	-	86	-	-	-	3.16	0.06
Mombasa	-	-	-	1	-	-	-	28	-	-	-	0.90	0.02
Nairobi	-	-	-	1	-	-	-	5	-	-	-	0	0.01
Nandi	-	-	-	0	-	-	-	5	-	-	-	0	0.00
Vihiga	-	-	-	1	-	-	-	1	-	-	-	0	0.00
Others	1,665	1,431	1,608	-	30441	17294	22,330	-	-	-	548	0	0.00
<b>Total</b>	<b>17,528</b>	<b>19,384</b>	<b>18,083</b>	<b>11,480</b>	<b>386,262</b>	<b>349,630</b>	<b>337,496</b>	<b>251,529</b>	<b>7,397</b>	<b>7,814</b>	<b>9,420</b>	<b>5,142</b>	<b>100</b>



#### 7.1.1.5. Tree Tomato

In the period under review, there was an increase in the area under production from 1,495 Ha to 1,581 Ha representing 5.8 percent growth. The tonnage produced increased from 29,374 MT in 2022 to 33,441 MT in 2023 and positively impacted the total value from 1.7 billion to 1.9 billion in the current period. The most significant counties were Nakuru (37 percent), Nyandarua

(16.7 percent), Narok (8.8 percent) and Meru (6.3 percent) of the total value.

The production challenges for this fruit are infestation by red spider mites and aphids which can be vectors of viruses affecting the crop. Access to quality and high yielding planting materials is also a major challenge facing farmers. For more details, refer to Table 101.

**Table 101: Summary of Tree Tomato Production 2020-2023 by County**

County	Area (Ha)		Volume (MT)		Value (KES) million		% of Total Value 2023
	2022	2023	2022	2023	2022	2023	
Nakuru	230	315	9,639	13,010	510	719	36.97
Nyandarua	342	297.2	6,347	5,376	468	326	16.73
Narok	85	72	3,214	2,462	224	171	8.81
Meru	191	243	1,022	1,848	61	124	6.35
Nyeri	83	117	869	1,275	37	108	5.55
Uasin Gishu	67	52	1,760	1,560	103	97	4.97
Kirinyaga	94	65.5	1,512	1,308	58	97	4.97
Elgeyo Marakwet	82	86	1,416	1,473	82	82	4.23
Kisii	9	9	310	967	18	63	3.21
Laikipia	74	65	749	810	39	42	2.18
Kiambu	67	68.4	505	487	44	42	2.15
Nandi		44.6		601	0	29	1.47
W.Pokot	22	32.8	330	362	17	18	0.93
Baringo		30		445	0	11	0.55
Kericho		11		130	0	8	0.41
Embu	21	12.5	234	90	7	5	0.28
Murang'a	46	46.4	686	1,160	47	1	0.06
Tharaka Nithi		7		49	0	2	0.09
Trans Nzoia		1		10	0	1	0.04
Kajiado		2		10	0	0.40	0.02
Samburu		1.3		3	0	0.26	0.01
Nairobi		0.2		2	0	0.12	0.01
Vihiga		2.2		3	0	0.07	0.00
Other	81		780		54	0.00	0.00
<b>Total</b>	<b>1,494</b>	<b>1,581</b>	<b>29,373</b>	<b>33,441</b>	<b>1,769</b>	<b>1,946</b>	<b>100</b>

Source: AFA-Horticultural Crops Directorate

### 7.1.2. Exotic Vegetables

During the period under review, the area under production increased from 164,478 Ha to 177,022 Ha which is 7 percent increase while volume produced decreased from 3,209,165 MT in 2022 to 2,886,971 MT in 2023 accounting for 10 percent decrease. The value rose from KES 78.2 billion in 2022 to KES 79.4 billion in 2023 representing 1 percent increase. The rise in value was due to increase in tomatoes price at farm gate. For more details, refer to Table 102.

**Table 102: Summary of Exotic Vegetables 2020-2023 by County**

Crop	Area (Ha)			Volume (MT)			Value (KES) millions			%% of Total Value 2023
	2021	2022	2023	2021	2022	2023	2021	2022	2023	
Tomato	30,882	28,331	30,679	686,667	616,617	536,821	23,611.37	22,521.70	23,485.39	29.5
Cabbage	31,540	34,848	29,695	1,098,929	1,382,066	1,012,822	12,727.53	15,857.19	15,556.68	19.6
Kales	38,037	38,586	44,509	695,513	609,272	733,503	11,092.79	13,398.21	15,057.00	19.0
Garden peas	27,375	30,059	25,243	248,427	187,397	164,033	10,128.66	9,174.63	8,042.82	10.1
Spinach	10,764	11,651	12,668	156,558	157,369	167,872	3,815.88	4,292.22	5,189.43	6.5
French beans	6,935	7,181	21,749	60,013	68,374	81,446	3,121.54	3,435.45	4,186.26	5.3
Carrots	5,582	5,682	4,771	97,296	93,965	91,026	1,808.91	1,759.15	2,188.93	2.8
Snow peas	2,244	2,320	2,017	24,581	22,443	17,707	1,808.67	1,983.73	1,337.49	1.7
Runner beans	564	572	591	16,094	17,020	17,533	2,365.15	3,348.00	1,140.49	1.4
Snap peas	551	566	594	6,638	6,855	10,794	512.42	614.63504	787.495	1.0
Bell pepper	1,391	1,697	1,203	11,148	14,404	11,382	576.5	620.72165	579.88384	0.7
Broccoli	297	327	383	3,173	3,605	5,626	236.82	334.4727	559.08	0.7
Butternuts	707	754	1,040	9,544	9,813	15,253	192.82	272.19578	409.68221	0.5
Baby corns	800	522	346	15,898	9,865	10,196	389.22	253.308	393.16992	0.5
Courgette	646	675	733	3,735	3,641	4,981	128.21	131.08315	183.36693	0.2
Cucumber	-	480	443	-	5047	3,216	-	155.46523	150.5774	0.2
Beetroot	-	122	116	-	907	880	-	43.7059	48.049541	0.1
Cauliflower	-	105	108	-	505	657	-	34.24984	27.566	0.0
Sweetcorn	-	-	83	-	-	618	-	-	-	0.0
Radish	-	-	16	-	-	348	-	-	-	0.0
Asparagus	-	-	10	-	-	50	-	-	-	0.0
Lettuce	-	-	23	-	-	199	-	-	-	0.0
Turnips	-	-	2	-	-	10	-	-	-	0.0
Others	252	-	-	3,308	-	-	133.28	-	0	0.0
<b>Total</b>	<b>158,567</b>	<b>164,478</b>	<b>177,022</b>	<b>3,137,522</b>	<b>3,209,166</b>	<b>2,886,973</b>	<b>72,650</b>	<b>78,230</b>	<b>79,370</b>	<b>100</b>

Source: AFA-Horticultural Crops Directorate



### 7.1.2.1. Tomato

Tomato is the leading vegetable in terms of value in vegetable production, accounting for 29.5 percent to the value of exotic vegetables. During the period under review, the area under production increased from 28,331 Ha to 30,681 Ha which is 8 percent increase while quantity produced decreased from 616,617 MT in 2022 to 536,821 MT in 2023 accounting for 13 percent decrease. The value rose from 22.5 billion in 2022 to 23.5 billion in 2023. For more details, refer to Table 103.

**Table 103: Summary of Tomato Production from 2020-2023 by County**

County	Area (Ha)				Volume (MT)				Value (KES) million				% of Total Value 2023
	2020	2021	2022	2023	2020	2021	2022	2023	2020	2021	2022	2023	
Taita Taveta	3,515	3,546	2,358	2,369	71,077	104,028	69,177	59,258	1,620.84	2,978.13	1,635.01	2,951.84	12.6
Machakos	2,022	2,641	2,953	4,043	21,407	29,932	31,568	48,639	660.37	918.95	1,495.86	2,415.12	10.3
Kirinyaga	3,157	2,935	2,604	2,485	64,038	116,341	77,510	63,362	1,793.23	3,169.07	2,609.11	2,154.02	9.2
Homa Bay	716	551	585	2430	15,560	8,073	7,509	35,702	810.17	476.52	439.86	2,102.44	9.0
Kajiado	3,033	1,681	1,740	1,790	62,510	32,330	31,910	34,100	1,830.28	993.9	1,097.60	1,881.00	8.0
Baringo	-	-	-	1,220	-	-	-	35,268	-	-	-	1,766.10	7.5
Trans Nzoia	762	785	937.6	1002	14,149	19,463	24,735	25,271	716.95	872.78	1,133.58	1,212.75	5.2
Narok	1,701	2,226	1,866	1,232	31,855	39,484	69,765	27,895	1,183.47	1,879.90	2,139.88	795.45	3.4
Meru	549	626	537	623	14,632	18,877	16,547	19,277	453.54	663.49	632.89	773.00	3.3
Laikipia	626	543	410	510	20,425	14,130	9,490	11,522	802.87	590.2	459.75	565.23	2.4
Nakuru	549	328	361.5	448	19,821	10,612	10,499	11,601	799.69	495.05	469.01	540.01	2.3
Siaya	1,227	1,741	1,954	1,797	13,496	26,932	27,491	10,936	482.48	1,229.44	1,357.20	507.41	2.2
Kiambu	874	771	671	700	19,955	19,781	18,578	12,088	738.67	336.81	363.71	481.01	2.0
Kitui	956	967	733.5	790	25,085	26,900	12,150	15,802	755	756.01	487.75	474.07	2.0
Murang'a	1,330	1,392	1,355	1,349	27,543	31,795	31,442	10,252	1,079.44	1,049.75	1,043.64	454.61	1.9

Lamu	645	1,274	679	695	12,390	31,800	8,334	8,550	788.4	1,588.75	670.08	428.26	1.8
Kisumu	-	-	-	697	-	-	-	6922	-	-	-	396.11	1.7
Bungoma	694	633	1013.2	746	19,397	16,285	30,350	12,022	826.43	656.13	1,377.17	299.57	1.3
Elgeyo Marakwet	-	-	-	399	-	-	-	6,041	-	-	-	290.83	1.2
Migori	-	-	-	803	-	-	-	7,954	-	-	-	285.37	1.2
Makueni	1,273	702	721	375	34,229	20,710	17,231	9,803	1,126.39	663.11	516.9	281.35	1.2
Kwale	-	-	-	373	-	-	-	6,069	-	-	-	246.91	1.1
Embu	-	-	-	509	-	-	-	7,930	-	-	-	202.00	0.9
Nyeri	-	-	-	200	-	-	-	4,187	-	-	-	186.40	0.8
Kisii	-	-	-	325	-	-	-	3,940	-	-	-	174.66	0.7
Tharaka Nithi	-	-	-	170	-	-	-	5,428	-	-	-	171.12	0.7
Nyamira	-	-	-	267	-	-	-	4,124	-	-	-	137.19	0.6
Nandi	-	-	-	123	-	-	-	2,471	-	-	-	134.24	0.6
Isiolo	-	-	-	210	-	-	-	3,150	-	-	-	133.50	0.6
Uasin Gishu	-	-	-	159	-	-	-	4,706	-	-	-	133.08	0.6
Tana River	-	-	-	261	-	-	-	5,056	-	-	-	133.04	0.6
Mandera	-	-	-	304	-	-	-	2,236	-	-	-	130.86	0.6
Busia	-	-	-	211	-	-	-	2,606	-	-	-	104.24	0.4
W.Pokot	-	-	-	107	-	-	-	2,335	-	-	-	98.77	0.4
Kilifi	-	-	-	205	-	-	-	2,690	-	-	-	97.62	0.4
Kericho	-	-	-	164	-	-	-	1,626	-	-	-	92.35	0.4
Nairobi	-	-	-	104	-	-	-	1,986	-	-	-	78.28	0.3
Mombasa	-	-	-	26	-	-	-	922	-	-	-	45.92	0.2
Kakamega	-	-	-	163	-	-	-	1,125	-	-	-	44.03	0.2
Nyandarua	-	-	-	45	-	-	-	750	-	-	-	38.50	0.2
Samburu	-	-	-	48	-	-	-	236	-	-	-	13.33	0.1
Garissa	-	-	-	168	-	-	-	592	-	-	-	12.68	0.1
Turkana	-	-	-	13	-	-	-	128	-	-	-	8.63	0.0
Vihiga	-	-	-	12	-	-	-	138	-	-	-	6.90	0.0
Marsabit	-	-	-	11	-	-	-	125	-	-	-	5.60	0.0
Bomet	1,234	292	329		28,120	6,247	8,043		1,124.80	251.23	456.79	0.00	0.0
Others	6,624	7,248	6,523		457,616	112,947	114,288		3,092.25	4,042.18	4,135.93	0.00	0.0
<b>Total</b>	<b>31,487</b>	<b>30,882</b>	<b>28,331</b>	<b>30,681</b>	<b>973,305</b>	<b>686,667</b>	<b>616,617</b>	<b>536,821</b>	<b>20,685</b>	<b>23,611</b>	<b>22,522</b>	<b>23,485</b>	<b>100</b>

Source: AFA-Horticultural Crops Directorate



### 7.1.2.2. Cabbage

The total area under cabbage production decreased from 34,848 Ha in 2022 to 29,695 Ha in 2023, similarly the production decreased from 1,382,066 MT in 2022 to 1,012,822 MT in 2023 an equivalent of 26.7 percent decrease. The value of cabbages also declined by KES 300 million equivalent to 2 percent in the same period. The leading counties were Nyandarua (28 percent), Nakuru (17 percent), Nyeri (9 percent), Narok (9 percent) and Meru (7 percent) cumulatively accounting for 69 percent of total value. For more details, refer to Table 104.

**Table 104: Summary of Cabbage Production 2020-2023 by County**

County	Area (Ha)				Volume (MT)				Value (KES) million				% of Total Value
	2020	2021	2022	2023	2020	2021	2022	2023	2020	2021	2022	2023	
Nyandarua	10,245	11,970	14,141	10,293	373,690	527,700	779,381	428,397	1,969.0	5,123.62	6,504.34	4,306.60	27.7
Nakuru	2,207	2,319	2,412	2,866	97,042	75,132	123,596	140,737	981.32	1,166.68	1,381.89	2,644.35	17.0
Nyeri	2,150	1,707	2,240	3,021	78,050	67,896	70,580	113,412	724.62	1,001.64	1,249.43	1,362.84	8.8
Narok	1,952	1,749	1,577	1,668	73,174	58,855	42,675	38,805	1,031.0	822.66	568.53	1,325.73	8.5
Meru	1,904	2,388	2,719	1,481	64,993	76,382	72,732	45,238	902.37	950.86	1,053.30	1,038.76	6.7
Bungoma	599	451	876	844	15,339	12,214	33,519	27,871	171.21	137.3	392.98	963.21	6.2
Kiambu	2,287	2,212	2,395	2,474	50,668	28,835	42,192	37,748	709.65	240.96	1,003.26	836.94	5.4
Uasin Gishu			552	589			24,839	22,258			354.00	304.12	2.0
Trans Nzoia	483	261	423	460	12,600	8,468	13,804	17,310	300.43	159.71	232.20	287.65	1.8
Elgeyo Marakwet	930	887	897	875	23,504	24,824	28,087	26,200	487.41	367.13	525.26	246.86	1.6
Makueni	317	359	171	348	6,407	6,980	3,164	7,901	209.93	139.6	131.54	235.78	1.5

Murang'a	930	569	641	601	23,504	32,789	9,105	11,021	487.41	345.08	302.08	225.91	1.5
Nandi	-	-	-	448	-	-	-	12835	-	-	-	209.06	1.3
Nyamira	-	-	-	333	-	-	-	9951	-	-	-	196.70	1.3
Kericho	-	-	-	162	-	-	-	6408	-	-	-	165.10	1.1
Taita Taveta	-	-	-	527	-	-	-	8429	-	-	-	154.87	1.0
Laikipia	421	335		270	9,819	7,140		6,422	196.04	121.23	0	138.94	0.9
Bomet	1,014	828	814	283	38,010	39,927	38,819	4,800	584.97	463.81	460.37	137.01	0.9
Kirinyaga	-	-		241	-	-		7049	-	-	-	118.66	0.8
Kisii	857	308	353	336	28,661	11,435	12,108	11,982	666.86	136.47	176.97	107.15	0.7
Kajiado	-	-	-	330	-	-	-	6,410	-	-	-	103.44	0.7
Machakos	-	-	-	233	-	-	-	3,446	-	-	-	85.35	0.5
Migori	-	-	-	216	-	-	-	4,599	-	-	-	80.58	0.5
Baringo	-	-	-	131	-	-	-	3,425	-	-	-	66.15	0.4
W.Pokot	-	-	-	166	-	-	-	3,815	-	-	-	63.21	0.4
Lamu	-	-	-	30	-	-	-	1,200	-	-	-	36.00	0.2
Embu	-	-	-	61	-	-	-	1,220	-	-	-	24.40	0.2
Homa Bay	-	-	-	40	-	-	-	583	-	-	-	23.98	0.2
Busia	-	-	-	96	-	-	-	1,150	-	-	-	22.01	0.1
Nairobi	-	-	-	37	-	-	-	449	-	-	-	11.10	0.1
Kakamega	-	-	-	70	-	-	-	572	-	-	-	9.33	0.1
Tharaka Nithi	-	-	-	56	-	-	-	454	-	-	-	8.73	0.1
Kitui	-	-	-	47	-	-	-	195	-	-	-	5.01	0.0
Siaya	-	-	-	25	-	-	-	240	-	-	-	4.05	0.0
Kisumu	-	-	-	19	-	-	-	155	-	-	-	2.84	0.0
Samburu	-	-	-	10	-	-	-	74	-	-	-	1.78	0.0
Mandera	-	-	-	4	-	-	-	38	-	-	-	1.52	0.0
Vihiga	-	-	-	3	-	-	-	15	-	-	-	0.68	0.0
Kilifi	-	-	-	2	-	-	-	9	-	-	-	0.30	0.0
Others	3,991	5,198	4,638		82,593	120,353	87,465		1,082.0	1,550.77	1,521.04	0.00	0.0
<b>Total</b>	<b>30,287</b>	<b>31,541</b>	<b>34,849</b>	<b>29,695</b>	<b>978,054</b>	<b>1,098,930</b>	<b>1,382,066</b>	<b>1,012,822</b>	<b>10,504</b>	<b>12,728</b>	<b>15,857</b>	<b>15,557</b>	<b>100</b>

Source: AFA-Horticultural Crops Directorate



### 7.1.2.3. Kales

In the period under review, the area under kales increased by 5,925 Ha equivalent to 15 percent, likewise the volume produced increased by 124,236 MT (20 percent) while value increased by 1.7 billion (12 percent) compared to 2022. The overall increase was due to favourable weather in the main production areas. During the year under review the value of Kales accounted for 19 percent of all the exotic vegetables. For more details, refer to Table 105.

**Table 105: Summary of Kales Production 2020-2023 by County**

County	Area (Ha)				Volume (MT)				Value (KES) million				% of Total Value 2023
	2020	2021	2022	2023	2020	2021	2022	2023	2020	2021	2022	2023	
Homa Bay	2,261	1,196	1,565	4,406	21,597	15,974	17,638	37,493	380.68	371.62	482.52	1723.19	11.4
Kiambu	4,356	4,433	4,178	4,657	107,355	99,819	79,924	81,357	1,258.60	1,086.68	1918.67	1470.36	9.8
Narok	1,441	1,362	1,361	1,610	66,579	64,725	54,820	56,913	709.13	996.34	1114.88	1279.79	8.5
Migori	3,131	3,232	3,181	3,297	26,575	26,497	24,047	136,766	328.86	446.67	450.97	1249.63	8.3
Machakos	2,140	3,380	3,611	5,169	21,498	32,128	11,863	45,467	521.55	646.89	455.46	1124.19	7.5
Kisii	1,825	2,549	1,945	2,765	24,381	75,442	28,863	43,535	493.51	605.39	520.91	1107.60	7.4
Nakuru	1,762	1,677	1,477	2,029	49,059	47,628	38,342	39,588	844.74	665.52	667.75	585.68	3.9
Meru	731	724	649	794	15,330	15,555	15,550	18,401	170.31	178.13	404.48	540.37	3.6
Baringo	-	-	-	447	-	-	-	21,770	-	-	-	474.00	3.1
Bungoma	1,020	1,020	1,239	1,191	18,548	18,548	26,936	22,274	373.36	373.36	560.63	436.12	2.9

Uasin Gishu	-	-	-	872	-	-	-	19,535	-	-	0.00	408.88	2.7
Kitui	1,394	1,350	1,016	890	26,580	26,980	15,240	13,343	553.6	710.09	468.60	400.28	2.7
Siaya	1,765	1,965	2,809	2,632	22,868	9,995	11,190	15,011	612.96	202.3	330.13	396.83	2.6
Lamu	355	725	605	830	8,813	7,743	15,030	18,123	178.15	189.39	330.90	323.83	2.2
Makueni	1,175	580	591	542	67,392	10,970	11,033	11,037	814.31	246.96	291.59	284.69	1.9
Murang'a	1,101	1,122	1,083	1,141	29,832	36,239	34,405	10,306	565.99	683.48	664.18	251.12	1.7
Wajir	-	-	-	150	-	-	-	5602	-	-	-	224.08	1.5
Taita Taveta	-	-	-	501	-	-	-	8603	-	-	-	218.26	1.4
Kericho	-	-	-	179	-	-	-	12760	-	-	-	204.70	1.4
Elgeyo Marakwet	557	564	637	549	7,718	9,562	10,442	7,944	109.14	151.15	171.07	186.22	1.2
Nyeri	-	-	-	471	-	-	-	10,981	-	-	-	181.10	1.2
Kakamega	2,270	1,864	1,530	1,242	9,257	9,041	23,205	9,865	228	299.24	606.51	164.23	1.1
Vihiga	-	-	-	316	-	-	-	4,339	-	-	-	159.62	1.1
Kisumu	486	950	794	971	4,637	10,360	6,895	5,192	138.42	355.29	280.18	157.64	1.0
Nandi	-	-	-	694	-	-	-	12388	-	-	-	145.46	1.0
Trans Nzoia	745	351	671	658	9,909	3,833	15,127	9,039	144	81.28	189.84	141.43	0.9
Nyamira	898	1,294	989	588	13,940	49,280	24,040	8,250	204.15	743.15	524.56	135.25	0.9
Busia	777	461	801	820	8,291	2,775	3,782	5,261	262.78	88.67	244.83	131.75	0.9
Kirinyaga	458	456	377	396	5,620	9,786	8,240	5,681	56.82	99.66	137.78	128.38	0.9
Nyandarua	735	825	899	400	12,100	16,185	15,546	6,124	72.8	199.66	364.23	109.77	0.7
West Pokot	-	-	-	295	-	-	-	4,070	-	-	-	102.81	0.7
Kajiado	-	-	-	580	-	-	-	6,150	-	-	-	99.20	0.7
Embu	-	-	-	272	-	-	-	3,300	-	-	-	87.75	0.6
Laikipia	-	-	-	146	-	-	-	1,670	-	-	-	68.18	0.5
Mandera	-	-	-	165	-	-	-	802	-	-	-	55.35	0.4
Tana River	-	-	-	193	-	-	-	1,902	-	-	-	54.41	0.4
Bomet	1,491	754	868	405	18,730	7,941	18,665	3,560	256.88	166.02	223.28	43.76	0.3
Turkana	-	-	-	72	-	-	-	1,084	-	-	-	43.67	0.3
Kwale	-	-	-	333	-	-	-	2,601	-	-	-	39.83	0.3
Nairobi	-	-	-	376	-	-	-	1,747	-	-	-	37.97	0.3
Kilifi	-	-	-	170	-	-	-	1,360	-	-	-	27.20	0.2
Isiolo	-	-	-	96	-	-	-	1,145	-	-	-	18.28	0.1
Mombasa	-	-	-	21	-	-	-	336	-	-	-	13.53	0.1
T/ Nithi	-	-	-	95	-	-	-	496	-	-	-	10.99	0.1
Samburu	-	-	-	24	-	-	-	147	-	-	-	5.08	0.0
Marsabit	-	-	-	27	-	-	-	172	-	-	-	4.04	0.0
Garissa	-	-	-	34	-	-	-	18	-	-	-	0.54	0.0
Others	4,997	5,203	5,710		72,056	88,508	98,449		1,175.94	1,505.87	1,994.25	0.00	0.0
<b>Total</b>	<b>37,871</b>	<b>38,037</b>	<b>38,586</b>	<b>44,511</b>	<b>668,665</b>	<b>695,514</b>	<b>609,272</b>	<b>733,508</b>	<b>10,455</b>	<b>11,093</b>	<b>13,398</b>	<b>15,057</b>	<b>100</b>

Source: AFA-Horticultural Crops Directorate



#### 7.1.2.4. Garden Peas

During the year under review, the area under production decreased by 13 percent from 30,059 Ha to 25,244 Ha correspondingly, the production decreased from 187,397 MT to 164,034 MT representing a 12 percent drop while the value also reduced from KES 9.2 billion in 2022 to KES 8.04 billion representing a 12 percent drop. The leading counties in production of the garden peas were Nyandarua (55 percent), Meru (18 percent), Nakuru (15 percent) and Narok (5 percent) of the total value in 2023. Major challenges in garden pea production are pest and diseases, majorly the African bollworm, powdery mildew and black spot diseases. For more details, refer to Table 106.

**Table 106: Summary of Garden Peas production 2020-2023 by County**

County	Area (Ha)		Volume (MT)		Value (KES) millio		% of Total Value 2023
	2022	2023	2022	2023	2022	2023	
Nyandarua	19,017	16,653	105,103	100,688	4,160	4,458	55
Meru	1,445	840	25,115	14,842	2,491	1,464	18
Nakuru	4,283	5,007	26,358	32,394	1,119	1,206	15
Narok	822	852	4,605	5,358	275	365	5
Elgeyo Marakwet	313	222	3,295	2,950	79	185	2
Kiambu	525	859	1,662	3,667	122	140	2
Uasin Gishu	3,078	312	15,737	1,601	676	71	1
Nyeri	162	169	832	797	60	55	1
Trans Nzoia	94	74	893	684	44	35	0
Baringo	115	90	2,213	534	73	27	0
Laikipia	40	54	120	159	14	19	0
Taita Taveta	18	25	124	106	5	5	0
Nandi	-	14	-	53	-	3	0
Nairobi	-	11	-	78	-	2	0
Bungoma	32	36	232	35	7	2	0
Kericho	44	4	320	20	21	2	0
Migori	-	8	-	16	-	2	0
W.Pokot	-	8	-	22	-	0.48	0
Makueni	-	3	-	25	-	0.25	0
Murang'a	-	3	-	5	-	0.19	0
Bomet	10	-	160	-	8	0.00	0
Others	61	-	628	-	22	0.00	0
<b>Total</b>	<b>30,059</b>	<b>25,244</b>	<b>187,397</b>	<b>164,034</b>	<b>9,176</b>	<b>8,042</b>	<b>100</b>

Source: AFA-Horticultural Crops Directorate

### 7.1.3. Medicinal and Aromatic Plants (MAPs)

During the period under review, the area under aromatic plants increased from 13,690 Ha in 2022 to 14,578 Ha. The production increased from 192,470 MT worth KES 8.46 billion in 2022 to 207,127 MT worth KES 14.3 billion in 2023.

The leading crops in this category were bulb onions, spring onions, coriander and garlic accounting for 78, 9, 5 and 3 percent respectively. For more details, refer to Table 107.

**Table 107: Summary of Medicinal and Aromatic Plants Production 2020-2023 by County**

Crop Categories	Area (Ha)			Volume (MT)			Value (KES) million			% of Total Value 2023
	2021	2022	2023	2021	2022	2023	2021	2022	2023	
Bulb Onions	9,024	7,862	8,125	129,864	126,534	134,980	5,242.58	5,300.16	11,091.36	77.6
Spring Onions	2,892	2,791	3,268	34,354	31,941	33,498	931.27	1,023.86	1,249.85	8.7
Coriander	1,123	1,229	1,206	15,605	17,858	18,527	775.49	689.322	734.462	5.1
Garlic	207	300	230	18,103	3,467	2,944	383.85	470.6725	425.22	3.0
African Birds Eye	339	354	428	7,274	1,483	6,175	368.11	83.895	315.976	2.2
Long Cayenne	797	724	665	6,499	7,040	6,085	260.65	309.6	288.7295	2.0
Tunguja			153			1,530		0	30.6	0.2
Bullet Chilli	136	109	124	1,121	725	742	38.14	41.4845	27.3847	0.2
Rosemary	276	94	39	3,377	1,329	359	182.09	379.6479	27.28	0.2
Vanilla			152			527		0	26.543	0.2
Leeks	47	44	48	320	390	563	17.24	20.74218	24.686	0.2
Stinging Nettle	-		38			430		0	21.78215	0.2
Parsley			32			274		0	12.194691	0.1
Celery	10	8	6	380	69	96	40.71	8.211772	3.994	0.0
Chives	114	65	22	448	352	67	26.07	21.66	2.81	0.0
Moringa			28			245		0	2.8	0.0
Ginger	78	76	3	925	916	40	36.7	35.838	2.17	0.0
Methi			3			19		0	1.112	0.0
Palak			2			13		0	0.449	0.0
Aloe			4			8		0	0.13	0.0
Lemon Grass			1			2		0	0.03	0.0
Artemisia			0			0		0	0.015	0.0
Cucuri			1			3		0	0.015	0.0
Jetropha			0			0		0	0.0045	0.0
Mint		15			194			34	0	0.0
Basil	11	11		147	154		19.28	38.5	0	0.0
Stevia										0.0
Turmeric	3			12	18		0.6	1.6		0.0
<b>Total</b>	<b>15,057</b>	<b>13,690</b>	<b>14,578</b>	<b>218,429</b>	<b>192,470</b>	<b>207,127</b>	<b>8,323</b>	<b>8,459</b>	<b>14,290</b>	<b>100</b>

Source: AFA-Horticultural Crops Directorate



### 7.1.3.1 Bulb Onion

Bulb onion production in Kenya is targeted for the domestic market and the demand for the same outstrips the local supply resulting in importation from Tanzania and other neighboring countries. In 2023, the leading counties in bulb onion production were Taita Taveta (31 percent), Bungoma (14 percent), Meru (13 percent), Kitui (9 percent) and Narok (8 percent) of the total crop value. During the year under review, there was an increase in area by 3.3 per cent, volume by 7 percent and value doubled compared to 2022. The surge in value is linked to the deficit experienced in the country during off season resulting in high demand. Bulb onion production are affected by thrips pests, purple blotch and rust diseases. For more details, refer to Table 108.

**Table 108: Summary of Bulb Onion Production 2020-2023 by County**

County	Area (Ha)		Volume (MT)		Value (KES) million		% of Total Value 2023
	2022	2023	2022	2023	2022	2023	
Taita Taveta	865	2189	12,958	33,990	496	3,399	31
Bungoma	719	565	18,865	16,474	892	1,545	14
Meru	761	798	18,442	18,215	907	1,408	13
Kitui	460	427.44	4,565	8,549	181	948	9
Narok	640	542	15,447	9,651	462	842	8
Nyeri	548	527	8,641	8,073	216	655	6
Machakos	596	155.5	4,600	3,181	222	275	2
Mandera	185	387	2,550	4,976	117	273	2
W.Pokot	583	533.266	5,632	5,010	264	243	2
Trans Nzoia	58	112	2,091	4,273	92	233	2
Laikipia	115	222	2,040	3,103	114	173	2
Elgeyo Marakwet		164		2,160	0	130	1
Kisumu	61	101.5	496	1,309	38	123	1

Kisii		181		1,878	0	94	1
Isiolo	220	175	4,500	1,850	145	74	1
Homa Bay	295	129	2,132	964	144	59	1
Nakuru		73.5		826	0	57	1
Migori	138	96	2,022	844	101	56	1
Tana River		55		1,064	0	53	0
Kiambu		87.3		1,466	0	53	0
Makueni		80		834	0	51	0
Kajiado	371	35	8,380	700	212	49	0
Nandi		40		748	0	39	0
Murang'a		36		530	0	38	0
Busia		28.5		451	0	29	0
Lamu		23		552	0	27	0
Siaya		55		585	0	25	0
Nairobi		35.112		336	0	20	0
Uasin Gishu		15		495	0	19	0
Bomet		38		304	0	17	0
Kericho		17		270	0	17	0
Nyamira		34		354	0	14	0
Baringo		10		250	0	13	0
Embu		39		165	0	8	0
Kakamega		25.5		142	0	7	0
Kilifi		10.5		75	0	7	0
Tharaka Nithi		9.5		55	0	6	0
Garissa		54		113	0	5	0
Samburu		4		48	0	3	0
Kirinyaga		2.5		29	0	3	0
Nyandarua		11		88	0	3	0
Vihiga		2		4	0	0	0
Others	1247		13,173		697	0	0
<b>Total</b>	<b>7,862</b>	<b>8,125</b>	<b>126,534</b>	<b>134,984</b>	<b>5,300</b>	<b>11,091</b>	<b>100</b>

Source: AFA-Horticultural Crops Directorate



### 7.1.3.2. Spring Onion

Spring onion is a popular crop among the smallholder farmers cultivated both for commercial purposes and domestic consumption. The crop is grown purposely for its leaves which can be consumed either raw or cooked. The leading counties in the production of this crop were Nakuru (18 percent), Meru (16 percent), Kisii (7 percent) and Narok (7 percent) of the total crop value. The area increased by 479 Ha, production by 1,156 MT while the value increased by KES 225 million compared to 2022. The major challenges in spring onion production are pests such as onion thrips and leaf miners and diseases such as purple blotch and rust. For more details, refer to Table 109

*Table 109: Summary of Spring Onion Production 2020-2023 by County*

County	Area (Ha)		Volume (MT)		Value (KES)		% of Total Value 2023
	2022	2023	2022	2023	2022	2023	
Nakuru	273.5	376	3,359	5,106	106	231	18
Meru	224	250	4,416	4,750	182	201	16
Kisii	210	189	2,449	2,368	90	90	7
Narok	299	299	2,637	2,562	92	87	7
Nyeri	44	561	921	2,606	23	67	5
Trans Nzoia	20	77.5	270	1,595	15	66	5
Laikipia	105	127	1,260	1,524	56	65	5
Nyandarua	60	112.5	560	1,388	14	55	4
Homa Bay	149	131	1,719	1,113	52	55	4
Bungoma	233	197	2,617	2,430	32	51	4
Elgeyo Marakwet		206		1,670	0	35	3
Nandi	180	124.7	1,614	1,003	31	35	3
Busia	20	29.5	382	686	14	31	2
Bomet	228	47	2,735	588	73	31	2
Nyamira	161	112	2,417	868	96	30	2
Kirinyaga	32	28.5	510	445	12	20	2

Kiambu		67.93		468	0	19	2
Kericho	28	28	440	430	22	16	1
Migori	118	99	1,037	489	44	14	1
W.Pokot		27		270	0	11	1
Nairobi		30.2		183	0	10	1
Turkana		5		125	0	8	1
Uasin Gishu	30	24	438	355	10	7	1
Baringo		13		133	0	4	0
Embu		23		183	0	4	0
Siaya	95	50	673	50	25	3	0
Murang'a		14.51		60	0	2	0
Vihiga		10		21	0	1	0
Kajiado		3		20	0	1	0
Kisumu		4		8	0	0	0
Kakamega		1.5		2	0	0	0
Others	281		1,488		36	0	0
<b>Total</b>	<b>2,789</b>	<b>3,268</b>	<b>31,942</b>	<b>33,498</b>	<b>1,024</b>	<b>1,250</b>	<b>100</b>

Source: AFA-Horticultural Crops Directorate



### 7.1.3.3. Corriander

Coriander also known as 'Dhania' is a sweet aromatic spice used as an ingredient in many food recipes in the country. During the period under review, the crop contributed 5 percent to the total value of MAPS. In 2023, the area under the crop increased by 1.7 percent from 1,227 Ha in 2022 to 1,206 Ha in 2023 while the both the quantity and value increased by 3.8 percent and 6.5 percent respectively. The leading county in the production was Kiambu (79 percent) of the total value. This crop does not tolerate heavy rains and waterlogging but fairly resistant to diseases. However, there can be instances of fungal diseases such as Fusarium wilt, Powdery mildew and Stem rot. Pests such as thrips, aphids and whiteflies also affect the crop. For more details, refer to Table 110.

Table 110: Summary of Coriander Production 2020-2023 by County

County	Area (Ha)		Volume (MT)		Value (KES) million		% of Total Value 2023
	2022	2023	2022	2023	2022	2023	
Kiambu	590	567	13,921	14,688	549	580	79
Nakuru	120	106	1,099	798	28	31	4
Kajiado	35	39	361	198	15	17	2
Murang'a	51	64	393	544	14	17	2
Nyandarua		6		297	0	14	2
Meru	44	40	458	448	14	14	2
Bungoma	55	43	463	403	16	10	1
Migori	19	21	155	190	8	9	1
Mandera	72	72	122	128	12	8	1
Kirinyaga	60	41	345	235	10	6	1
Homa Bay	21	16	68	80	2	5	1
Kitui	22	72	40	78	2	5	1
Makueni		16		83	0	4	1
Nyeri		14		79	0	4	0
Baringo		19		72	0	4	0
Nairobi	12	12	59	75	3	3	0
Nandi		13		52	0	2	0
Samburu		2		20	0	1	0
Embu		21		30	0	1	0
Busia		2		10	0	1	0
Kisii	30	6	64	11	3	0	0
Garissa		13		7	0	0	0
Kilifi		2		2	0	0	0
Vihiga		1		1	0	0	0
Uasin Gishu	20		50		3	0	0
Others	78.1		260		10	0	0
<b>Total</b>	<b>1,227</b>	<b>1,206</b>	<b>17,857</b>	<b>18,527</b>	<b>689</b>	<b>734</b>	<b>100</b>

Source: AFA-Horticultural Crops Directorate



#### 7.1.3.4. Garlic

Garlic commonly known as ‘Kitunguu Saumu’ is an herbaceous annual plant which is cultivated for its pungent edible bulb. In year 2023, the area under production of the crop decreased by 23 percent from 300 Ha in 2022 to 230 Ha while the production decreased by 15 percent from 3,467 MT to 2,944 MT in 2023. Consequently, the value also decreased by 10 percent from KES 471 million in 2022 to KES 425 million in the current year. The leading counties in production were Meru (67 percent), Laikipia (21 percent) and Nyeri (6 percent) of the total garlic value. The major challenges affecting garlic production include diseases such as downy mildew, purple blotch, rust, white rot and garlic mosaic virus (GarMV). Pests like bulb mites, leaf miners, onion maggots, thrips and nematodes are also a menace. For more details, refer to Table 111.

**Table 111: Summary of Garlic Production 2020-2023 by County**

County	Area (Ha)		Volume (MT)		Value (KES) million		% Contribution by Value in 2023
	2022	2023	2022	2023	2022	2023	
Meru	126	152	1,890	1,892	284	284	66.7
Laikipia	100	15	1,110	600	105	90	21.2
Nyeri	35	40	230	240	55	26	6.0
Narok	21	16	112	97	16	14	3.4
Nyamira		5		100	0	10	2.4
Kajiado	2	2	20	15	2	2	0.4
Makueni	8		60		5	0	0.0
Bungoma	7		42		4	0	0.0
Kisii	1		3		0	0	0.0
<b>Total</b>	<b>300</b>	<b>230</b>	<b>3,467</b>	<b>2,944</b>	<b>471</b>	<b>425</b>	<b>100</b>

Source: AFA-Horticultural Crops Directorate



### 7.1.3.5. African Birds Eye Chillies

The African Bird's Eye Chillies is a perennial crop produced for both the domestic and export markets. The produce is consumed either fresh or processed. The area under the crop, increased from 354 Ha in 2022 to 428 Ha in 2023. The production increased from 1,483 MT in 2022 to 6,175 MT in 2023. The major producing counties include Tana River (77 percent), Kilifi (11 percent) and Meru (2 percent).

The production of the crop is affected by pests like false codling moth, aphids, thrips, red spider mites and diseases such as Damping-off, Anthracnose, Powdery Mildew, Chili Mosaic, Fusarium Wilt, Bacterial Leaf Spot and Phytophthora Blight. For more details, refer to Table 112.

**Table 112: Summary of African Birds Eye Chillies Production 2020-2023 by County**

County	Area (Ha)		Volume (MT)		Value (million)		% Contribution by Value in 2023
	2022	2023	2022	2023	2022	2023	
Tana River	-	115	-	4875	0	244	77.1
Lamu	160	166	560	581	34	35	11.0
Kilifi	92	72.5	443	371.75	27	19	5.9
Meru	16	16	124	122	6	6	1.8
Machakos	8	10	18	62.5	1	3	1.0
Taita Taveta	-	14	-	24.75	-	3	0.9
Busia	2	4	7	20	0.42	2	0.6
Kitui	-	15	-	30	-	2	0.6
Nakuru	9	6	30	29.4	2	2	0.5
Kirinyaga	-	4	-	27.5	0	1	0.5
Narok	-	1	-	10	0	0.30	0.1
Murang'a	4	3.5	20	20.4	1	0.27	0.1
Vihiga	-	0.55	-	0.85	0	0.02	0.0
Kisii	20	-	110	-	6	-	0.0
Bungoma	25	-	80	-	4	-	0.0
Kajiado	5	-	41	-	2	-	0.0

County	Area (Ha)		Volume (MT)		Value (million)		% Contribution by Value in 2023
	2022	2023	2022	2023	2022	2023	
Nandi	5	-	34	-	2	-	0.0
Others	8	-	16	-	1	-	0.0
<b>Total</b>	<b>354</b>	<b>428</b>	<b>1,483</b>	<b>6,175</b>	<b>84</b>	<b>316</b>	<b>100</b>

Source: AFA-Horticultural Crops Directorate

#### 7.1.4. African Leafy Vegetables (ALV)

In 2023, the area under ALV had a 25 percent decrease of 12,076 Ha compared to area recorded in 2022. Similarly, the volume decreased from 307,324 MT in 2022 to 247,078 MT in 2023. The value decreased by KES 1.9 billion from KES 10.62 billion in 2022 to KES 8.72 billion realised in 2023. Refer to Table 113 for more details.

Table 113: Summary of African Leafy Vegetables Production 2020-2023

Crop Categories	Area (Ha)			Volume (MT)			Value (KES) million			% of Value 2023
	2021	2022	2023	2021	2022	2023	2021	2022	2023	
African Nightshade	6,250	8,345	6,723	59,724	80,210	58,914	2,345.99	3,331.98	2,645.69	30.4
Cowpea	26,284	26,077	16,908	100,712	101,783	70,416	2,209.52	2,718.60	1,870.37	21.5
Leaf Amaranthus	4,500	5,281	4,398	38,877	49,472	52,072	1,074.51	1,662.94	1,656.44	19.0
Spider Plant	3,541	3,783	3,556	33,649	30,696	29,049	1,232.03	1,338.27	1,399.95	16.1
Pumpkin Fruits	1,391	1,473	1,489	22,587	21,172	22,382	677.69	694.68	718.98	8.2
Pumpkin Leaves	1,011	1,011	1,215	5,813	6,395	6,208	131.44	151.46	153.11	1.8
Jute Mallow	649	701	896	6,363	5,858	3,602	288.86	246.03	101.02	1.2
Slender leaf	470	530	565	2,148	3,064	2,214	91.59	127.54	88.31	1.0
Grain Amarantha	424	492	331	2,513	2,370	1,063	117.74	120.69	53.45	0.6
Vine Spinach	226	287	56	1,410	2,561	538	46.84	78.91	13.13	0.2
Malabor Gourd	92	143	19	633	1279	204	26.06	54.31	8.19	0.1
Russian Confrey	138	185	76	3,500	2,464	416	40.1	89.87	7.81	0.1
<b>Total</b>	<b>44,976</b>	<b>48,308</b>	<b>36,232</b>	<b>277,929</b>	<b>307,324</b>	<b>247,078</b>	<b>8,282</b>	<b>10,615</b>	<b>8,716</b>	<b>100</b>

Source: AFA-Horticultural Crops Directorate

#### 7.1.5. Asian Vegetables

During the year under review, the area under asian vegetables decreased from 3,094 Ha in 2022 to 2,994 Ha but the volume increased from 37,917 MT in 2022 to 45,770 MT in 2023. There was a substantial increase in value by KES 433 million from KES 1.17 billion in 2022 to KES 1.61 billion in 2023 attributed to an increase in production and improved average farm gate prices. Refer to Table 114, for more details.

**Table 114: Summary of Asian Vegetables by Area, Volume and Value 2020-2023**

Crop	Area (Ha)				Volume (MT)				Value (KES) million				% of Total Value 2023
	2020	2021	2022	2023	2020	2021	2022	2023	2020	2021	2022	2023	
Okra	1,774	1,188	1,371	1,520	15,105	14,008	12,832	23,215	479.16	362.15	348.44	885.33	55.2
Egg-plant	1,197	1,063	1,239	1,186	16,526	17,531	19,049	20,050	537.06	545.07	584.04	619.02	38.6
Dudhi	87	485	95	88	1,028	6,472	998	1149	61.65	297.59	33.91	41.94	2.6
Karella	72	369	224	86	521	3,393	1968	712	38.45	163.8	104.17	34.06	2.1
Turia	94	108	70	88	509	675	406	438	14.61	19.65	12.74	13.3	0.8
Valore	19	14	17	17	88	67	58	135	3.95	3.05	2.91	7.65	0.5
Tindori	15	57	78	9	150	1,658	2606	71	4.5	66.31	85.61	3.886	0.2
<b>Total</b>	<b>3,258</b>	<b>3,284</b>	<b>3,094</b>	<b>2,994</b>	<b>33,927</b>	<b>43,804</b>	<b>37,917</b>	<b>45,770</b>	<b>1,139</b>	<b>1,458</b>	<b>1,172</b>	<b>1,605</b>	<b>100</b>

Source: AFA-Horticultural Crops Directorate

## 7.2. Market Performance

### 7.2.1. Horticulture Export

The total value of horticultural produce exported increased from KES 147.08 billion in 2022 to KES 156.69 billion in 2023 representing a 7 percent increase attributed to an increase in volumes exported by 76,931.27 MT.

During the period under review, the value of flowers exports decreased by KES 30.4 billion from KES 103.8 billion in 2022 to KES 73.5 billion. In addition, the value of vegetable exports rose by 115.5 percent from KES 23.59 billion in 2022 to KES 50.86 billion. The value of fruit exports increased by 64.9 percent from KES 19.63 billion in 2022 to KES 32.37 billion in 2023. In 2022, flower exports accounted for 47 percent of the total horticultural export values while vegetables and fruits accounted for 32.5 and 21 percent of the total value respectively. For more details, refer to Table 115.

**Table 115: Summary of Horticultural Exports 2020-2023**

Crop	Volume (MT)				Value (KES) million				% of Total Value 2023
	2020	2021	2022	2023	2020	2021	2022	2023	
Flowers	146,033.55	210,135.89	198,735.40	116,272.45	107,508.57	110,849.27	103,849.28	73,454.57	47
Vegetables	62,575.41	78,138.85	62,142.73	164,063.92	24,228.43	28,461.52	23,599.44	50,866.67	32
Fruits	105,059.55	117,321.80	130,628.64	188,101.67	18,426.94	18,382.91	19,632.84	32,373.15	21
<b>Total</b>	<b>313,668.51</b>	<b>405,596.54</b>	<b>391,506.77</b>	<b>468,438.04</b>	<b>150,163.94</b>	<b>157,693.70</b>	<b>147,081.56</b>	<b>156,694.39</b>	<b>100</b>

Source: AFA-Horticultural Crops Directorate

### 7.2.1.1. Flower Exports

During the period of review, the flower exports decreased from 198,736 MT valued at KES 103.8 billion in 2022 to 116,272 MT valued at KES 73,455 billion realised in 2023. There was substantial 29.3 percent decrease in value by KES 30.4 billion in 2023 attributed to the muted demand for flowers in key markets. For more details, refer to Table 116.

**Table 116: Summary of Flower Exports by Category**

Flower Category	Volumes (MT)				Value (KES) million				% of Total Value in 2023
	2020	2021	2022	2023	2020	2021	2022	2023	
Roses	109,662	152,509	149,238	81,634	76,163	78,134	73,570	46,290.36	63
Cuttings	2,878	30,995	3,917	27,789	13,986	21,144	13,510	17,345.71	24
Carnation / Dianthus	1,101	2,234	1,499	1,430	602	736	582	816.34	1
Alstro- emeria	2,047	1,006	2,785	49	935	595	903	12.23	0
Mixed Flowers	21,448	19,480	29,188	-	11,015	7,876	10,640	0	0
Gypsophi- la / Million Stars	1,593	795	2,168	-	947	574	915	0	0
Hypericum	2,013	736	2,740	-	954	396	922	0	0
Others	5,291	2,382	7,201	5,371	2,907	1,395	2,808	8989.943	12
<b>Total</b>	<b>146,033</b>	<b>210,137</b>	<b>198,736</b>	<b>116,273</b>	<b>107,509</b>	<b>110,850</b>	<b>103,850</b>	<b>73,455</b>	<b>100</b>

Source: AFA-Horticultural Crops Directorate

### 7.2.1.2. Vegetable Exports

During the year under review, vegetables exports volumes increased from 61,819 MT in 2022 to 147,693 MT in 2023. There was substantial increase in value by KES 17.7 billion from KES 23.5 billion in 2022 to KES 41.2 billion realised in 2023 attributed to an increase in production and improved average farm gate prices. Refer to Table 117, for more details.

**Table 117: Summary of Vegetable Exports by Category**

Vegetable	Volumes (MT)				Value (KES) millions				% of Total Value 2023
	2020	2021	2022	2023	2020	2021	2022	2023	
Fine Beans	14,496	14,334	13,026	62,487	4,727	4,219	3,715	17,892	35.2
Fresh Herbs (MAPs)	3,071	2,550	2,028	12,837	1,700	1,637	1,358	5,586	11.0
Mixed Vegeta- bles	35,731	21,798	17,336	11,583	14,061	10,180	8,441	4,668	9.2
Snow Peas/ Mangetout	1,911	843	1,416	5,848	667	341	608	2,081	4.1

Cauliflowers and Broccoli	-	-	850	1,944	-	-	296	684	1.3
Leeks and other Alliaceous	-	-	-	795	-	-	-	510	1.0
Chillies (MAPs)	1,980	1,087	865	1,347	554	302	250	423	0.8
Cowpeas	-	-	-	3,715	-	-	0	386	0.8
Baby Corn	-	-	171	1,069	-	-	123	332	0.7
Capsicum (MAPs)	-	1,006	800	479	-	302	250	171	0.3
Onions/Shallots (MAPs)	-	-	-	1,242	-	-	-	83	0.2
Ginger (MAPs)	-	-	-	265	-	-	-	76	0.1
Aubergine	896	739	588	229	131	128	106	38	0.1
Cabbages, Kohirabi, Kale	-	-	-	280	-	-	-	25	0.0
Pumpkins, Squash and Gourds	-	-	-	58	-	-	-	13	0.0
Carrots	-	3,444	2,739	107	-	126	104	8.42	0.0
Basil and Chives (MAPs)	1,797	1,082	936	12	1,288	645	586	7.11	0.0
Garlic (MAPs)	-	-	-	24	-	-	-	6.28	0.0
Cinnamon	-	-	-	6	-	-	-	5.60	0.0
Tomatoes	-	-	-	23	-	-	-	5.26	0.0
Beetroots	-	-	-	8	-	-	-	4.78	0.0
Cloves (MAPs)	-	-	-	38	-	-	-	1.62	0.0
Lentils	-	-	-	26	-	-	-	0.984	0.0
Lettuce	-	-	-	2	-	-	-	0.450	0.0
Asparagus	-	-	-	2	-	-	-	0.413	0.0
Cucumbers and gherkins	-	-	-	1	-	-	-	0.351	0.0
Tumeric (MAPs)	-	-	-	5	-	-	-	0.329	0.0
Mushrooms and Truffles	-	-	-	-	-	-	-	0.081	0.0
Spinach (garden spinach)	-	-	-	-	-	-	-	0.031	0.0
Celery (MAPs)	-	-	-	-	-	-	-	0.008	0.0
Garden Peas	240	2,256	1,794	-	101	904	749	0	0.0
Others Vegetables and MAPs	459	24,233	19,272	59,631	298	8,442	7,000	17,856	35.1
<b>Total</b>	<b>60,581</b>	<b>73,372</b>	<b>61,819</b>	<b>164,064</b>	<b>23,527</b>	<b>27,226</b>	<b>23,586</b>	<b>50,867</b>	<b>100</b>

Source: AFA-Horticultural Crops Directorate

### 7.2.1.3. Fruits Exports

During the period under review, fruit exports increased from 130,629 MT in 2022 to 188,100 MT accounting for 44 percent increase. Fruits exports value increased by KES 12.7 billion representing 64.9 percent increase compared to 2022. This was attributed to access to new market in China. Refer to Table 118, for more details.

**Table 118: Summary of Fruits Exports**

CROP	Volumes (MT)				Value (KES) millions				% of Total Value 2023
	2020	2021	2022	2023	2020	2021	2022	2023	
Avocado	72,049	86,980	103,969	114,073	14,735	14,646	15,597	19,037	59
Pineapple	24,492	18,178	12,489	46,643	2,132	1,502	1,655	8,142	25
Mango	7,115	10,378	12,184	9,548	1,059	1,717	1,828	1,464	5
Passion Fruit	791	361	402	798.427	169.6	115	123	272	1
Oranges	-	-	-	383.279	-	-	0	53	0
Raspberries	479	265	295	43.564	297	176	188.401	35	0
Apple	5	10	11	183.291	0.98	2.35	2.5	31	0
Tamarinds	-	-	-	250.38	-	-	0	13.1	0
Grape fruit	-	-	-	98.971	-	-	0	12.5	0
Banana	-	-	-	73.163	-	-	0	6.09	0
Mandarin	-	-	-	32.798	-	-	0	4.33	0
Fresh Pawpaws	43	4.21	4.68	2.371	8.34	0.56	0.6	0.22	0
Lemon	38	22	24	-	11.8	12.12	13	-	0
Custard	20	7.49	8.34	-	3.87	1.57	1.7	-	0
Others	27	1,116	1,242	15,971	8.63	209.33	224	3,303	10
<b>Total</b>	<b>105,060</b>	<b>117,322</b>	<b>130,629</b>	<b>188,102</b>	<b>18,427</b>	<b>18,383</b>	<b>19,633</b>	<b>32,373</b>	<b>100</b>

Source: AFA-Horticultural Crops Directorate

### 7.2.2. Export Destinations

The top horticultural export destinations in 2023 were; the Netherlands (27 percent), United Kingdom (14 percent), France (13 percent), United Arab Emirates (6 percent), Germany (5.1 percent) and Monaco (4.6 percent). In particular, Netherlands, UK, France, UAE and Germany have remained the most important destinations for Kenya's horticultural products export for four consecutive years accounting cumulatively for over 65 percent total market share annually. For more details, refer to Table 119.

**Table 119: Exports by Country of Destination**

Country	Volumes (MT)			Value (KES) billions			% of Total Value 2023
	2021	2022	2023	2021	2022	2023	
Netherlands	127,133.17	120,252.19	105,502.80	49.429	45.1764	42.78	27.3
United Kingdom	78,602.90	66,045.89	51,569.19	30.56	24.8122	22.41	14.3
France	23,075.90	23,673.36	64,789.02	8.972	8.8936	20.24	12.92
UAE	18,760.32	20,455.39	39,982.75	7.294	7.6847	9.14	5.83
Germany	19,276.74	18,803.52	15,122.44	7.495	7.0641	7.91	5.05
Monaco	6.74	-	30,482.83	0.003	-	7.27	4.64
Saudi Arabia	12,975.18	16,920.73	19,015.53	5.045	6.3568	5.91	3.77
Kazakhstan	538.14	4,371.09	4,580.04	0.209	1.6421	3.68	2.35
Spain	8,808.73	10,024.29	12,980.43	3.425	3.7659	3.17	2.02
India	8,731.21	1,478.02	20,027.21	3.395	0.5553	2.79	1.78
Norway	6,870.91	6,771.45	3,281.94	2.671	2.5439	2.23	1.42
Italy	4,222.95	6,237.48	4,974.53	1.642	2.3433	2.1	1.34
China	1,154.80	1,141.99	6,533.43	0.449	0.429	1.45	0.93
Japan	2,812.27	2,446.59	866.39	1.093	0.9191	1.41	0.9
Switzerland	3,816.59	3,652.58	2,544.49	1.484	1.3722	1.37	0.87
Australia	3,566.54	4,510.17	1,777.82	1.387	1.6944	1.35	0.86
Turkey	1,953.83	3,515.16	9,096.93	0.76	1.3206	1.32	0.84
Belgium	3,773.72	4,273.01	3,793.98	1.467	1.6053	1.24	0.79
USA	2,807.98	3,001.30	897.87	1.092	1.1275	1.22	0.78
Qatar	2,485.10	2,853.30	3,693.34	0.966	1.0719	1.15	0.74
Others	74,222.81	71,079.27	66,925.07	28.86	26.7	16.54	10.56
<b>Total</b>	<b>405,596.53</b>	<b>391,506.77</b>	<b>468,438.04</b>	<b>157.7</b>	<b>147.1</b>	<b>156.7</b>	<b>100</b>

Source: AFA-Horticultural Crops Directorate

**Annex 1: Data Collection and Collation Methodology**

Directorate	Name of the Indicator	Methods Data Collection	Periodicity of Measurement	Disaggregation of the Indicator
Sugar	Area under Sugarcane (Ha)	Returns from Millers	Monthly	Sugar milling zone
	Area Harvested (Ha)			
	Cane Deliveries (MT)			
	Sugarcane price			
	Cane Yields	Calculated		
	Sugar Production (MT)	Returns from Millers		
	Mollases Production, Sales and Stocks (MT)			
	Sugar Imports & Exports (MT)	Returns from KRA & reconciliation using permits issued by Sugar Directorate		Internationally
	Domestic Sugar Prices (KES)	From Millers. Market surveys in various towns	Daily for the ex-factory sugar price and Monthly for the wholesale and Retail prices	Towns
Coffee	Number of coffee nurseries	County		
	Number of co-operative societies and Estates	County		
	Area under Coffee (Ha)	Estimates from Production	Annually	Countywise
	Cherry deliveries to factories	Returns from Millers and Co-operative Societies		
	Cherry payments and rates	Returns from Millers and Co-operative Societies		
	Clean Coffee Production (MT)	Returns from Millers	Monthly	Countywise
	Coffee Auction (USD)	Returns from Coffee Auction	Weekly and Monthly	Internationally
Pyrethrum, Miraa & Other Industrial Crops	Area under Miraa and Muguka (Ha)	Market Survey	Monthly/ Annually	Countywise
	Farm Gate Prices		Monthly/ Annually	Countywise
	Exports volume and value	Ken trade	Monthly/ Annually	Internationally
	Area under Pyrethrum	Returns from the processing factories	Annually	Countywise
	Dry flowers collected		Monthly	Countywise
	Exports (Py Equivalent)		Monthly	Internationally

Horticultural Crops	Area under Horticultural Products	Data Validation	Seasonal	County and Sub County
	Horticultural Production	Data Validation		
	Domestic Market prices	From MoALD	Daily and Monthly	various local towns
	Horticultural Produce Exports	HCD Data capture system at JKIA and Kilindini	Monthly	Internationally
Fibre Crops	Area under Cotton	Returns from ginners	Annualy	Countywise
	Seed Cotton		Monthly	
	Lint sold by ginners to spinners volumes in Tons or bales and value in KES		Monthly	
	Area under Sisal (Ha)	Returns from Processors	Annualy	
	Sisal Production (MT)	Returns from Processors	Monthly	
	Sisal exports values and volumes	Returns from marketing agents		Internationally
Nuts and Oil Crops	Area under the scheduled nuts and oil crops	Through collation of Validated data from counties, Farmer Association, Large scale farmers,	Semi- annually	County and Sub County
	Production & Productivity			
	Imports	KRA reports	Monthly	Country of Source and quantity per commodity
	Domestic Market prices	Market surveys	Daily/weekly/Monthly	Towns
Food	Area under the scheduled food crops	Through collation of Validated data from counties, Farmer Association, Large scale farmers,	Semi- annually	County and Sub County
	Production & Productivity			
	Imports	KRA reports	Monthly	Country of Source and quantity per commodity
	Domestic Market prices	Market surveys	Daily/weekly/Monthly	Towns

**Annex 2: Exchange rate in 2023**

Month	Exchange Rate (USD)
January	123.93
February	125.45
March	129.75
April	134.40
May	137.24
June	139.73
July	141.45
August	143.93
September	146.77
October	149.40
November	152.03
December	154.09

Source: Central Bank of Kenya

**Annex 3: Coffee Year Summary**

Index	2021/2022	2022/2023
GDP contributions	0.20%	0.20%
Area (ha)	National (109,385)	National (111,902)
	Estates (25,300)	Estates (28,123)
	Co-ops (84,085)	Societies (83,779)
Production (Kg)	National (51,852,633.67)	National (48,648,541.03)
	Estates (15,553,434.80)	Estates (14,160,448.58)
	Co-ops (36,290,398.21)	Societies (34,488,092.45)
	Bulk (8,800.66)	
Yield (Kg/ha)	National (474.04)	National (444.75)
	Estates (614.76)	Estates (559.70)
	Co-ops (431.60)	Societies (410.16)
Total value of production (US dollars/KES)	303.88 Million (KES 34.98 Billion)	204.53 Million (KES 24.65 Billion)
Total Export volume (Kg)- GBE	42,857,634.24	47,956,516.68
Total Export value US Dollars)	298,556,882.23	252,119,875.69
Total Export value (KES)	34,365,706,476.89	34,109,096,353.15
Total No Bags Exported in (60 Kgs)	713,394.00	799,275.28
Export average price per 60 Kgs bag (US Dollars)	418.21	315.44

Top 5 export destinations (60-Kgs Bag)	USA (135,067 bags)-19%	USA (187,141 bags) - 23%
	Belgium (134,868 bags)-19%	Germany (139,118 bags) - 17%
	Germany (101,476)- 14%	Belgium (83,765 bags) - 10%
	South Korea (72,465) -10%	Sweden (68,795) - 9%
	Sweden (36,559 bags)-5%	Korea, Republic Of (51,982) - 7%
Total Import weight in Kg and bags	3,769,314.71 (62,822)	1392317.756
Total import value in US Dollars	19524607.95	6109862.33
National average cherry payout rate 2020/21 (KES/Kg)- Weighted	78.99	71.97
Highest cherry rate in KES/Kg	Nyeri County, (Njuriga FCS, Gakoe Factory) 130.00	Kirinyaga County, (Thirirka FCS, Gakuyu-ini Factory) 102.5
Nairobi Coffee Exchange weight and bags bought	38,790,263.00 (775,805)	32,651,992 (653,040)
Nairobi Coffee Exchange value in US dollars	227,332,870.42	127,861,762.74
Nairobi Coffee Exchange average price (US\$ per 50 Kgs bag)	293.03	195.79
Direct Sales weight in Kg and 60 kg bags	11,840,472.47 (197,341)	9,349,454.81 (155,824)
Direct Sales value in US Dollars	84,551,001.04	48,566,038.47
Direct Sales average price in US\$ per 50 Kgs bag	357.04	259.73
Weighted National average price/50 Kgs bag (Auction +Direct Sales) in US Dollars	308	210
Ratio of Estate: Smallholder production	30:70	29:71
Number of active co-operatives/factories	590/1190	605/1122
Number of active estates	2694	2749

Source: AFA – Coffee Directorate

*Annex 4: Coffee Area and Production 1962/63 - 2022/23*

No	YEAR	ESTATE		SMALLHOLDER		COUNTRY TOTAL	
		AREA(HA)	PROD(MT)	AREA(HA)	PROD(MT)	AREA(HA)	PROD(MT)
1	1962/63	32,538	24,800	49,121	16,000	81,659	41,400
2	1963/64	32,538	28,405	49,121	15,373	81,669	43,778
3	1964/65	32,423	22,393	51,577	14,774	84,000	37,167
4	1965/66	32,267	25,683	53,097	25,523	85,364	51,296
5	1966/67	31,964	25,231	52,450	27,558	84,414	52,789
6	1967/68	31,188	13,246	54,087	20,515	85,275	33,761
7	1968/69	30,690	22,342	54,984	23,264	85,674	45,606
8	1969/70	29,903	26,521	54,057	26,275	83,960	52,796
9	1970/71	29,900	28,600	53,800	26,302	83,700	54,902
10	1971/72	29,535	29,984	55,555	28,362	85,090	58,346
11	1972/73	29,535	39,956	55,287	34,734	84,222	74,690
12	1973/74	29,129	31,152	55,600	40,864	84,729	72,016
13	1974/75	28,603	29,985	57,786	35,464	86,389	65,449
14	1975/76	28,603	37,675	56,595	36,135	85,198	73,810
15	1976/77	27,821	49,685	56,600	47,660	84,421	97,345
16	1977/78	30,888	33,685	56,600	47,744	87,488	81,429
17	1978/79	29,195	26,809	62,574	46,079	91,769	72,888
18	1979/80	31,232	39,109	71,172	51,900	102,404	91,009
19	1980/81	32,861	34,744	84,710	64,007	117,571	98,751
20	1981/82	33,635	34,392	97,473	52,531	131,108	86,923
21	1982/83	33,605	32,981	100,967	52,469	134,572	85,450
22	1983/84	35,711	54,258	114,235	74,682	149,946	128,941
23	1984/85	35,711	28,922	116,328	67,717	152,039	96,639
24	1985/86	38,627	45,542	117,677	68,385	156,304	113,927
25	1986/87	38,487	36,881	116,056	67,907	154,534	104,288
26	1987/88	36,677	44,506	116,353	84,356	153,030	128,862
27	1988/89	39,579	38,649	116,087	78,340	155,666	116,989
28	1989/90	38,084	34,356	117,459	69,483	115,543	103,839
29	1990/91	38,024	37,520	120,238	41,977	158,262	79,497
30	1991/92	38,160	32,781	120,563	42,426	158,723	75,207
31	1992/93	38,372	33,037	122,660	39,747	161,032	71,787
32	1993/94	38,372	38,735	122,660	52,264	161,032	90,999
33	1994/95	38,372	40,109	122,660	56,885	162,410	96,994
34	1995/96	39,750	29,737	122,660	38,260	162,470	67,997
35	1996/97	39,750	22,050	122,720	33,584	167,398	55,634
36	1997/98	40,127	28,591	127,271	40,086	167,398	68,677
37	1998/99	40,127	38,585	127,271	62,265	167,398	100,850

38	1999/00	40,127	26,743	127,271	23,800	167,398	50,543
39	2000/01	42,000	26,900	128,000	25,000	170,000	51,900
40	2001/02	42,000	23,073	128,000	28,822	170,000	51,895
41	2002/03	42,000	21,417	128,000	34,026	170,000	55,443
42	2003/04	42,000	18,473	128,000	29,958	170,000	48,431
43	2004/05	42,000	20,745	128,000	24,500	170,000	45,245
44	2005/06	42,000	21,257	128,000	27,046	170,000	48,303
45	2006/07	42,000	25,000	120,720	28,368	162,720	53,368
46	2007/08	40,680	19,740	122,040	22,260	162,720	42,000
47	2008/09	24,521	24,650	84,263	29,370	108,784	54,020
48	2009/10	24,521	19,720	84,263	22,280	108,784	42,000
49	2010/11	24,521	16,690	84,263	19,630	108,784	36,629
50	2011/12	24,606	25,001	85,189	31,256	109,795	49,960
51	2012/13	24,606	13,773	85,189	26,092	109,795	39,865
52	2013/14	24,700	16,805	85,300	32,652	110,000	49,475
53	2014/15	26,067	14,808	87,433	27,230	113,500	42,038
54	2015/16	25,800	15,267	88,200	30,758	114,500	46,121
55	2016/17	25,900	14,151	88,800	24,468	114,700	38,620
56	2017/18	25,155	10,994	90,415	30,381	115,570	41,375
58	2018/19	25,349	14,103	90,844	30,881	116,193	44,989
59	2019/20	26,049	10,972	93,626	25,901	119,675	36,873
60	2020/21	25,026	11,671	83,173	22,840	108,199	34,512
61	2021/22	25,300	15,554	84,085	36,299	109,385	51,853
62	2022/23	28,123	14,160	83,779	34,488	111,902	48,648

Source: AFA – Coffee Directorate

#### Annex 5: Cane Deliveries by Factory from 2017-2023 in Metric Tonnes

Factory	2017	2018	2019	2020	2021	2022	2023
Chemelil	198,105	226,481	42,587	349,343	347,844	260,889	123,879
Muhoroni	307,301	215,325	210,514	285,154	317,592	325,684	140,306
Mumias	314,093	136,586	-	-	-	113,289	193,376
Nzoia	464,832	393,429	184,254	433,446	350,133	194,204	89,457
South Nyanza	460,160	490,442	204,701	197,098	422,292	444,150	367,022
Kibos	677,086	826,404	657,898	937,925	797,758	1,136,852	804,879
Soin	-	-	-	-	-	-	-
West Kenya	882,887	934,042	1,054,505	1,430,999	1,943,199	2,134,133	728,616
Butali	474,868	703,633	562,141	895,794	752,008	929,519	384,218
Transmara	423,977	576,588	731,840	826,616	1,028,693	805,101	1,058,991

Factory	2017	2018	2019	2020	2021	2022	2023
Sukari	345,421	533,988	633,230	624,235	973,980	952,967	910,606
Kwale	202,875	179,914	18,878	268,861	30,042	86,313	-
Olepito	-	45,325	130,520	150,556	188,468	227,751	150,798
Busia	-	-	174,034	410,871	507,111	407,124	112,790
Naitiri	-	-	-	-	-	781,794	401,010
West Valley	-	-	-	-	-	-	84,754
<b>Total</b>	<b>4,751,605</b>	<b>5,262,157</b>	<b>4,605,102</b>	<b>6,810,898</b>	<b>7,659,120</b>	<b>8,799,769</b>	<b>5,550,701</b>

Source: AFA - Sugar Directorate

#### Annex 6: Sugarcane Crushed by Factory from 2017-2023 in Metric Tons

Factory	2017	2018	2019	2020	2021	2022	2023
Muhoroni	321,727	225,094	187,957	279,738	313,539	319,615	137,645
Chemelil	195,993	228,052	43,487	346,841	353,616	263,744	123,397
Mumias	280,536	88,201	-	-	-	113,289	192,676
Nzoia	441,114	393,118	185,844	424,598	353,179	200,016	80,628
South Nyanza	435,046	508,623	233,722	220,550	430,076	487,051	360,793
Soin	-	-	-	-	-	-	-
Kibos	671,426	832,272	653,443	1,000,076	791,243	1,136,253	804,394
Butali	483,931	707,301	574,338	895,241	751,035	929,636	383,337
West Kenya	862,744	925,894	1,048,270	1,464,241	1,943,199	1,887,785	719,785
Sukari	331,271	518,534	633,229	617,810	972,556	936,550	907,007
Transmara	415,340	730,632	760,179	805,627	1,031,187	937,203	1,046,469
Kwale	201,643	172,312	18,020	264,352	30,042	90,950	-
Olepito	-	53,726	97,603	151,093	176,159	133,500	80,216
Busia	-	-	168,620	410,036	501,393	407,994	102,420
Naitiri	-	-	-	-	-	832,595	461,499
West Valley	-	-	-	-	-	-	83,633
<b>Total</b>	<b>4,640,771</b>	<b>5,383,759</b>	<b>4,604,712</b>	<b>6,880,203</b>	<b>7,647,224</b>	<b>8,676,181</b>	<b>5,483,900</b>

Source: AFA - Sugar Directorate

#### Annex 7: Sugar made by Factory from 2017-2023 in Metric Tons

Factory	2017	2018	2019	2020	2021	2022	2023
Muhoroni	21,074	15,981	11,964	18,060	20,671	23,971	9,138
Chemelil	12,309	15,089	2,606	25,362	22,053	17,168	8,406
Mumias	15,083	4,751	-	-	-	9,441	13,049
Nzoia	29,757	27,541	13,003	27,274	21,578	12,921	5,262
South Nyanza	35,162	40,726	12,448	14,373	32,627	41,206	31,463
Kibos	52,260	66,751	53,568	85,507	67,880	95,337	61,696

Factory	2017	2018	2019	2020	2021	2022	2023
Soin	-	-	-	-	-	-	-
Butali	47,053	65,468	53,577	87,226	79,787	101,637	34,945
West Kenya	75,270	71,283	85,085	128,786	188,512	175,632	58,027
Sukari	25,337	44,383	54,067	55,436	96,156	90,721	81,759
Transmara	42,019	67,275	72,504	78,701	107,347	93,670	106,884
Kwale	19,688	17,506	339	10,877	1,477	4,656	-
Olepito	-	4,051	8,044	11,926	15,741	11,691	6,591
Busia	-	-	10,912	31,978	47,723	37,140	7,269
Naitiri	-	-	-	-	-	85,245	42,695
West Valley	-	-	-	-	-	-	6,718
<b>Total</b>	<b>375,012</b>	<b>440,805</b>	<b>378,117</b>	<b>575,506</b>	<b>701,552</b>	<b>800,436</b>	<b>473,902</b>

Source: AFA - Sugar Directorate

#### Annex 8: Cane to Sugar Ratio by Factory from 2017-2023 (TC/TS)

Factory	2017	2018	2019	2020	2021	2022	2023
Chemelil	15.92	15.11	16.69	13.68	16.03	15.36	14.68
Muhoroni	15.27	14.09	15.71	15.49	15.17	13.33	15.06
Mumias	18.6	18.56	-	-	-	12	14.77
Nzoia	14.82	14.27	14.29	15.57	16.37	15.48	15.32
South Nyanza	12.37	12.49	18.78	15.35	13.18	11.82	11.47
Kibos	12.85	12.47	12.2	11.7	11.66	11.92	13.04
Butali	10.28	10.8	10.72	10.26	9.41	9.15	10.97
West Kenya	11.46	12.99	12.32	11.37	10.31	10.72	12.40
Sukari	13.07	11.68	11.71	11.14	10.11	10.32	11.09
Transmara	9.88	10.86	10.48	10.24	9.61	10.01	9.80
Kwale	10,24	9.84	53.13	24.3	20.34	19.53	-
Olepito	-	13.26	12.13	12.67	11.19	11.42	12.17
Busia	-	-	15.45	12.82	10.51	10.99	14.09
Naitiri	-	-	-	-	-	9.77	10.81
West Valley	-	-	-	-	-	-	12.45
<b>Weighted -average</b>	<b>12.37</b>	<b>12.21</b>	<b>12.18</b>	<b>11.96</b>	<b>10.9</b>	<b>10.84</b>	<b>11.57</b>

Source: AFA - Sugar Directorate

**Annex 9: Sugar Production (Bagged) by Factory from 2017-2023 in Metric Tonnes**

Factory	2017	2018	2019	2020	2021	2022	2023	% Contribution by Factory 2023
Chemelil	11,951	14,598	2,863	24,328	21,681	16,697	7,597	1.61
Muhoroni	20,942	14,886	10,601	17,464	19,711	23,300	8,292	1.75
Mumias	13,575	4,768	-	-	-	9,441	13,049	2.76
Nzoia	29,394	28,195	12,582	26,977	21,015	12,926	5,268	1.11
South Nyanza	35,060	40,149	12,573	13,908	32,786	41,228	31,482	6.66
Kibos	52,110	66,599	53,249	85,339	68,139	94,943	61,948	13.10
Soin	-	-	-	-	-	-	-	-
Butali	47,053	65,292	53,577	87,227	79,787	99,537	34,765	7.35
West Kenya	74,770	107,350	136,305	151,802	188,512	174,671	58,652	12.41
Sukari	29,542	60,401	68,657	63,146	96,156	90,939	81,759	17.29
Transmara	42,025	67,040	72,011	78,761	107,233	93,670	106,853	22.60
Kwale	19,689	17,570	339	10,875	1,477	4,656	-	-
Olepito	-	4,249	8,043	11,933	15,741	11,691	6,591	1.39
Busia	-	-	10,135	31,978	48,003	37,609	7,178	1.52
Naitiri	-	-	-	-	-	85,245	42,620	9.01
West Valley	-	-	-	-	-	-	6,718	1.42
<b>Total</b>	<b>376,111</b>	<b>491,097</b>	<b>440,935</b>	<b>603,738</b>	<b>700,241</b>	<b>796,554</b>	<b>472,773</b>	<b>100</b>

Source: AFA - Sugar Directorate

**Annex 10: Sugar Production, Sales and Closing Stocks in 2022 and 2023 in Metric Tonnes**

Sugar Factory	Production		Sales		Closing Stocks		% Share by Factory 2023
	2022	2023	2022	2023	2022	2023	
Muhoroni	23,300	8,292	23,274	7,965	54	366	2
Chemelil	16,697	7,597	16,518	7,681	271	182	1
Mumias	9,441	13,049	8861	12,849	578	703	3
Nzoia	12,926	5,268	12,706	5,341	212	135	1
Sony	41,228	31,482	40,718	31,940	601	142	1
West Kenya	174,671	58,652	174,219	55,341	1,345	4,600	20
Kibos	94,943	61,948	95,272	61,406	225	766	3
Butali	99,537	34,765	99,652	33,294	766	2,239	10
Transmara	93,670	106,853	94,643	101,128	979	8,125	36
Sukari	90,939	81,759	89,844	83,402	1,848	206	1
Kwale	4,656	-	2,996	474	1,659	-	-
Olepito	11,691	6,591	11,860	6,341	620	778	3
Busia	37,609	7,178	37,601	6,321	108	769	3
Naitiri	85,245	42,620	84,039	40,543	1,206	3,368	15
West Valley	-	6,718	-	6,574	-	144	1
<b>Total</b>	<b>796,554</b>	<b>472,773</b>	<b>792,203</b>	<b>460,599</b>	<b>10,472</b>	<b>22,523</b>	<b>100</b>

Source: AFA-Sugar Directorate

**Annex 11: Sugar Production, Consumption, Imports and Exports from 2017-2023 in Metric Tons**

YEAR	PRODUCTION	CONSUMPTION	IMPORTS	EXPORTS
2017	376,111	997,944	989,619	406
2018	491,097	1,008,703	284,169	1,966
2019	440,935	1,039,729	458,631	775
2020	603,788	1,072,414	442,393	375
2021	700,241	1,104,443	426,334	1,196
2022	796,554	1,131,129	320,708	359
2023	472,773	1,139,895	608,178.19	474.441

Source: AFA-Sugar Directorate

**Annex 12: Area under Cotton, Seed Cotton Production and Marketing**

YEAR	Area (Ha)	Seed cotton Production (MT)	Seed Cotton Average Price (KES/Kg)	Bales (Cotton Lint)	Yield (MT/ Ha)
2005	32,357	19,414	20	23,000	0.6
2006	36,277	22,492	21	51,000	0.6
2007	35,929	24,993	20	45,035	0.69
2008	43,035	15,093	22	27,027	0.35
2009	39,963	14,886	26	28,000	0.37
2010	20,533	11,822	48	21,300	0.58
2011	32,240	15,255	65	27,487	0.6
2012	25,540	13,877	35	21,450	0.55
2013	24,093	13,781	42	24,832	0.5
2014	29,108	16,500	42	30,000	0.572
2015	28,627	15,726	42	28,340	0.65
2016	28,700	15,800	42	28,468	0.55
2017	20,717	11,850	46	21,351	0.57
2018	13,432	5,321	46	10,672	0.4
2019	18,000	3,015	52	5,432	0.17
2020	9,837	3,495	48	6,196	0.35
2021	10,640	1,300	50	3,019	0.12
2022	8,585	3,762	60	6,779	0.44
2023	12,152	3,863	65	7,006.00	127

Source: AFA - Fibre Crops Directorate

**Annex 13: Cotton Sub-Sector in Kenya**

No.	Parameter	Current Production	Potential
		(Year 2023)	
1	Number of households growing cotton	30,000	200,000
2	Area under production (Ha)	12,152	385,000
3	Average area per farmer	1 acre	2-3 acre
4	Average yield Kg/Ha	127	3.5 MT -under irrigation
			4 MT -Hybrid seed/BT cotton
			2.5 MT-under Rainfed
5	Annual production-seed cotton (MT)	3,863	220,000 MT
6	Annual Production for Lint (No. of bales (185 kg lint))	7,006	400,000 bales (74,000 tons)

7	Seed cotton Value (KES) (52/50 per Kg)	231 million	11 billion
8	Value of lint (KES) (@ KES 180/- per Kg)	310 million	13.3 billion
9	Average national per capita consumption (The 4 Ginner- ies)	41,200 bales	140,000 bales (25,900MT)
		(7,600MT)	
10	Farmers	40,000	200,000
11	Types Grown in Kenya	Conventional (Hart 89, KSA 81), BT Cot- ton, Hybrid	Hart 89, KSA 81, BT Cotton, Hybrid, short early maturing
12	Employment	200,000	10 million

Source: AFA - Fibre Crops Directorate

#### Annex 14: Sisal Fibre Grades

Grade	Description
No. 1	Length from 3ft. upwards, average 3ft. 6in. Free of defective decortication, properly brushed free of tow, tousled and bunchy ends, knots and harshness. Color creamy-white to cream.
No. 2	Length from 2ft. 6in. upwards. Free of defective decortication, properly brushed, free of tow, tousled or bunchy ends, knots and harshness. Color creamy-white to cream.
No. 3	Length from 2ft. upwards. Brushed fibre with minor defects in cleaning permissible, but must be free of tow, knots, barky or undecorticated fibre. Color may vary from creamy-white to yellowish, but a higher proportion of spotted or discolored fibre is permissible.
3L (3 Long)	Length from 3ft. upwards. Brushed fibre with minor defects in cleaning permissible, but it must be free of tow, knots, barky or undecorticated fibre. Color may vary from creamy-white to yellowish but a higher proportion of spotted or discolored fibre is permissible.
UG (Under grade)	Fibre that does not conform to the above grades as regards color, cleaning and length. Defects in cleaning, some imperfectly decorticated fibre or barky runners allowed but must be free from undecorticated leaf and knots. Length must not be less than 2ft.
S.C.W.F. (Short clean white fibre)	Length from 18-24in. Free of defective decortication, properly brushed, free of tow, tousled and bunchy ends, knots and harshness. Color creamy-white to cream.
U.H.D.S. (Unwashed hand decorticated sisal)	Shall not be graded in accordance with sisal grading definitions, but shall be sold by sample.

Tow 1	Proper tow from brushing machines. Free of line fibre cuttings, dirt and reasonably free of dust but entirely free of sweepings, knots, barky or un decorticated fibre. Color creamy-white to cream.
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Source: AFA - Fibre Crops Directorate

#### Annex 15: Sisal Exports in Value and Volume 2017 - 2023

Year	Exports Volume (MT)	Exports Value (KES)
2018	23,072.3	3,794,336,317
2019	22,281.7	3,618,218,551
2020	28,463.3	4,670,949,884
2021	28,927.6	5,120,991,809
2022	28,888	5,949,754,044
2023	22,358.40	5,343,490,000

Source: AFA - Fibre Crops Directorate

#### Annex 16: Area, Production and Value of Maize 2022-2023

County	2022			2023		
	Area (Ha)	Volume (MT)	Value (KES)	Area (Ha)	Volume (MT)	Value (KES)
Baringo	37,894	63,087	3,492,630,000	42,501	121,110	6,236,424,500
Bomet	29,597	57,370	3,550,945,777	27,250	70,942	3,369,792,630
Bungoma	92,464	276,556	16,992,431,533	90,966	267,322	12,797,367,500
Busia	42,476	64,360	3,705,046,500	44,097	78,849	4,577,270,000
Elgeyo Marakwet	31,713	86,144	4,266,202,000	43,133	137,957	7,655,044,000
Embu	34,506	10,077	610,196,000	34,500	51,008	2,236,150,110
Garissa	107	70	3,640,000	142	204	8,385,000
Homa Bay	86,265	103,356	5,412,487,649	78,795	127,450	7,599,068,000
Isiolo	129	94	4,712,500	256	197	10,210,000
Kajiado	32,159	69,439	3,467,862,500	33,241	53,895	2,197,130,000
Kakamega	101,334	255,580	13,101,622,796	87,532	187,453	7,498,309,000
Kericho	40,530	131,317	6,711,768,000	40,643	131,683	5,846,739,408
Kiambu	29,174	28,418	1,422,534,064	30,537	35,848	1,887,529,000
Kilifi	72,748	81,980	3,712,170,832	95,674	120,669	5,920,089,500
Kirinyaga	30,503	13,547	800,131,667	38,467	77,644	2,361,903,982
Kisii	43,735	96,922	5,476,113,961	66,221	143,900	8,563,857,872
Kisumu	54,125	34,513	1,933,695,000	62,195	113,589	4,543,560,000
Kitui	54,067	63,386	3,532,328,288	83,618	43,782	1,651,099,700
Kwale	56,576	34,061	1,383,604,300	60,518	64,704	3,090,365,000
Laikipia	26,405	7,743	447,025,000	29,596	44,868	1,826,085,000

Lamu	39,503	104,704	5,235,240,000	55,800	78,390	2,880,900,000
Machakos	134,048	23,095	1,385,701,500	158,086	253,281	10,979,455,000
Makueni	127,716	63,858	3,831,480,000	194,977	97,790	3,597,710,000
Mandera	3,209	2,160	108,290,000	3,208	3,194	191,640,000
Marsabit	591	3	180,000	2,184	2,359	141,540,000
Meru	66,338	70,333	3,573,480,000	142,379	186,881	7,730,535,000
Migori	85,628	145,582	5,493,228,256	78,567	133,598	5,479,589,000
Mombasa	842	272	16,294,800	1,750	2,403	138,875,000
Muranga	67,530	48,990	1,791,624,283	68,399	63,928	2,421,518,391
Nairobi	661	435	24,974,000	758	643	40,641,000
Nakuru	69,065	218,580	11,951,258,090	71,470	215,412	8,281,511,086
Nandi	45,674	137,760	7,013,532,330	67,429	253,293	12,457,489,825
Narok	127,460	321,854	19,577,361,996	168,860	403,429	15,779,886,900
Nyamira	48,280	79,285	3,799,535,000	48,175	84,932	3,998,950,000
Nyandarua	20,060	41,336	1,379,060,000	20,716	53,903	2,330,942,355
Nyeri	26,984	14,814	834,250,600	31,317	51,269	2,135,460,777
Samburu	15,870	11,178	372,630,000	6,448	15,829	1,108,030,000
Siaya	73,521	96,430	4,262,128,000	77,550	151,865	9,733,268,760
Taita Taveta	11,464	12,293	664,090,000	13,596	16,101	768,795,000
Tana River	6,673	13,843	606,609,000	5,734	11,005	495,225,000
Tharaka Nithi	23,640	25,852	1,606,159,000	26,617	39,437	1,662,403,400
Trans Nzoia	95,140	394,610	20,360,500,000	125,065	530,183	23,140,612,944
Turkana	3,408	452	14,587,500	1,750	2,403	138,875,000
Uasin Gi-shu	104,396	420,524	24,730,005,000	117,923	538,196	26,423,938,000
Vihiga	25,758	31,809	1,050,565,200	24,921	32,085	1,671,599,000
Wajir	72	25	1,000,000	1,146	3,064	165,800,000
West Pokot	34,780	52,650	2,565,624,000	49,097	134,918	4,317,364,199

Source: State Department for Crops Development & Agricultural Research (SDCDAR)

#### Annex 17: Area, Production and value of Wheat 2022-2023

County	2022			2023		
	Area (Ha)	Volumes (MT)	Value (KES)	Area (Ha)	Volumes (MT)	Value (KES)
Narok	55,770	167,927	5,580,421,078	49,879	130,563	5,169,343,036
Nakuru	29,775	112,219	3,939,913,000	18,603	71,810	3,871,924,375
Uasin Gishu	15,992	41,786	2,543,884,999	12,316	38,821	1,577,235,000
Meru	6,785	21,712	1,255,280,000	7,225	24,363	1,532,520,000
Laikipia	1,770	9,430	632,880,000	5,920	24,110	1,106,858,500

Nyandarua	1,915	6,004	262,635,000	2,516	7,160	251,169,781
Samburu	2,800	2,772	194,040,000	4,200	8,820	617,400,000
Nyamira	1,522	835	28,517,000	2,789	1,503	75,150,200
Baringo	160	400	10,000,000	240	1,080	43,200,000
Elgeyo Marakwet	178	522	28,912,500	179	334	14,352,500
Nyeri	662	1,543	94,339,750	235	251	12,375,000
Trans Nzoia	126	285	16,478,610	187	408	22,099,985
Bungoma	66	214	8,540,000	113	192	6,592,000
Marsabit	21	1	50,000	26	47	3,760,000
Nandi	0	0	0	7	21	714,000

Source: State Department for Crops Development & Agricultural Research (SDCDAR)

#### Annex 18: Barley Production and Value, 2022-2023

County	2022			2023		
	Area (Ha)	Volumes (MT)	Value (KES)	Area (Ha)	Volumes (MT)	Value (KES)
Narok	2,685	7,797	319,065,000	9,350	19,075	832,893,600
Nakuru	4,137	10,075	409,364,000	3,245	11,322	334,026,000
Meru	670	2,144	123,520,000	620	2,232	128,160,000
Laikipia	20	63	3,159,900	18	32	1,920,000

Source: State Department for Crops Development & Agricultural Research (SDCDAR)

#### Annex 19: Area, Production and Value of Rice 2022-2023

County	2022			2023		
	Area (Ha)	Volumes (MT)	Value (KES)	Area (Ha)	Volumes (MT)	Value (KES)
Kirinyaga	14,202	69,488	6,146,180,199	14,219	89,746	4,851,303,743
Kisumu	5,560	22,240	1,015,200,000	6,210	27,945	1,072,890,000
Tana River	4,022	9,872	598,420,500	4,149	9,677	697,430,000
Taita Taveta	920	5,185	285,199,750	1,121	7,567	416,185,000
Busia	1,328	4,716	448,050,000	1,350	5,983	244,010,980
Homa Bay	541	1,123	117,765,000	820	2,865	200,460,000
Kwale	480	1,350	67,500,000	1,930	2,089	200,410,000
Siaya	810	4,668	204,000,000	740	1,992	138,240,000
Migori	1,304	2,076	105,778,000	650	1,560	109,200,000
Murang'a	560	853	110,730,000	280	1,190	95,920,000
Bungoma	90	324	32,400,000	91	128	5,104,600
Kilifi	43	39	3,152,000	52	33	2,793,800
Kakamega	47	89	8,170,000	35	22	1,554,000

Meru	24	22	968,000	24	22	1,540,000
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Source: State Department for Crops Development & Agricultural Research (SDCDAR)

### Annex 20: Area, Production and Value of Sorghum

County	2022			2023		
	Area (Ha)	Volumes (MT)	Value (KES)	Area (Ha)	Volumes (MT)	Value (KES)
Kitui	72,356	71,979	3,453,982,000	68,755	37,325	1,366,437,500
Meru	9,951	10,110	393,507,000	37,042	34,340	2,099,070,000
Homa Bay	33,785	27,250	1,231,891,461	16,653	28,042	1,828,310,400
Kisumu	17,300	12,456	745,200,000	21,500	26,946	1,212,570,000
Siaya	11,311	11,385	500,855,000	10,599	14,876	644,970,000
Tharaka Nithi	10,600	5,507	205,646,250	14,635	11,066	458,132,600
Busia	5,044	7,067	354,094,850	5,392	7,710	403,765,000
Embu	3,741	1,629	97,790,000	3,857	6,491	563,229,000
Turkana	5,608	904	53,176,000	4,843	3,951	110,571,000
Migori	4,514	3,843	204,616,000	5,034	3,922	253,899,200
Lamu	950	1,375	137,500,000	2,004	2,839	208,190,000
Makueni	16,816	8,408	420,400,000	7,113	2,532	95,210,000
Narok	1,094	2,230	103,278,836	1,486	2,391	86,928,100
Wajir	279	94	3,740,000	1,246	2,243	124,970,000
Machakos	7,258	3,674	83,583,558	5,456	2,010	84,130,000
Elgeyo Marakwet	735	936	54,842,000	1,072	1,996	100,589,400
Baringo	1,590	557	22,554,590	1,666	1,822	93,117,875
Taita Taveta	1,368	948	30,731,500	1,991	1,193	43,818,792
Bomet	1,777	2,318	173,910,000	734	1,148	39,760,000
Kericho	954	1,288	50,085,000	985	1,064	35,424,540
West Pokot	278	245	14,090,000	2,301	1,035	46,019,540
Mandera	869	616	22,782,000	1,345	1,035	67,275,000
Trans Nzoia	2,607	3,138	245,884,000	491	988	49,382,492
Nakuru	480	707	37,540,584	559	856	32,365,045
Bungoma	516	1,089	44,758,100	488	762	37,296,000
Nandi	162	269	15,498,273	463	760	36,055,600
Kakamega	669	648	26,030,156	448	575	12,649,200
Laikipia	-	-	-	247	221	11,045,000
Uasin Gishu	96	182	11,508,000	89	217	8,042,580
Kwale	718	1,178	45,463,425	308	190	12,027,000

Kirinyaga	73	35	2,506,830	110	149	5,070,348
Murang'a	252	159	7,532,283	203	143	5,061,262
Marsabit	76	3	140,000	106	140	4,200,000
Garissa	53	49	1,430,000	130	111	3,795,000
Kisii	85	67	4,682,870	117	98	6,645,959
Kilifi	40	42	2,815,600	243	45	2,436,750
Nyamira	45	47	2,111,728	53	43	1,636,000
Kiambu	0	0	0	28	25	1,946,250
Vihiga	162	121	5,592,500	302	219	11,372,000
Nairobi	4	2	100,000	5	4	110,000
Kajiado	9	5	346,000	2	2	98,000

Source: State Department for Crops Development & Agricultural Research (SDCDAR)

#### Annex 21: Area, Production and Value of Millets 2022-2023

County	2022			2023		
	Area (Ha)	Volumes (MT)	Value (KES)	Area (Ha)	Volumes (MT)	Value (KES)
Kitui	50,972	56,721	4,363,381,200	49,670	22,292	981,480,000
Embu	5,847	1,753	122,246,500	6,627	13,898	1,214,640,000
Bomet	9,026	15,519	1,448,910,180	5,822	8,990	579,426,030
Meru	4,376	7,558	362,463,250	10,608	7,969	227,680,250
Tharaka Nithi	10,920	2,992	174,130,600	17,290	7,783	460,088,650
Baringo	6,032	5,276	390,882,000	6,480	7,108	573,819,000
Nyamira	9,341	6,058	518,900,000	9,534	5,858	551,058,750
Kisii	4,067	2,433	223,114,540	7,576	5,835	675,840,930
Elgeyo Marakwet	2,465	2,074	162,250,000	2,506	3,080	272,420,000
Busia	3,328	2,635	216,400,000	3,334	2,701	241,670,000
West Pokot	273	83	8,286,000	2,460	1,550	193,695,999
Lamu	1,190	1,060	111,180,000	995	1,217	116,300,000
Migori	880	1,737	146,014,000	932	1,196	80,398,754
Trans Nzoia	586	659	58,876,802	676	1,193	130,996,000
Narok	992	1,560	115,494,500	1,014	1,135	78,207,200
Kericho	745	671	53,640,000	772	973	84,218,098
Nandi	132	162	11,267,700	507	818	92,737,855
Nakuru	521	859	65,800,800	590	809	55,037,770
Bungoma	1,114	899	78,541,678	851	434	38,309,440
Uasin Gishu	279	317	26,811,000	240	420	32,964,050
Kakamega	457	489	48,430,800	643	416	29,818,000

Makueni	533	107	8,230,000	247	150	8,080,000
Kirinyaga	56	19	1,492,000	60	98	6,493,125
Siaya	72	52	4,669,000	98	74	8,651,658
Kisumu	64	20	1,215,000	83	34	3,061,800
Vihiga	35	27	2,871,800	100	24	1,590,900
Machakos	5	1	120,000	-	-	-
Kwale	5	4	318,750	-	-	-
Homa Bay	4	2	250,000	-	-	-
Vihiga	-	-	-	20	15	1,471,000

Source: State Department for Crops Development & Agricultural Research (SDCDAR)

### Annex 22: Area, Production and Value of Beans, 2022-2023

County	2022			2023		
	Area (Ha)	Volumes (MT)	Value (KES)	Area (Ha)	Volumes (MT)	Value (KES)
Nakuru	76,260	109,908	12,543,245,600	82,785	121,221	9,777,238,822
Meru	76,210	51,601	3,969,823,500	131,624	67,720	6,587,303,500
Machakos	89,222	17,478	2,233,617,313	89,098	63,179	6,332,980,000
Trans Nzoia	57,650	57,816	5,809,850,000	61,462	61,553	6,871,066,720
Narok	52,813	43,171	3,847,972,900	48,245	56,980	6,409,528,250
West Pokot	14,843	4,982	451,340,000	62,992	56,693	6,157,451,378
Kajiado	49,930	38,394	3,841,410,000	47,957	50,018	3,560,720,000
Kakamega	72,882	22,559	2,287,243,144	49,279	49,364	4,711,467,000
Bungoma	87,724	56,038	4,580,946,868	63,445	47,584	5,115,780,000
Elgeyo Marakwet	19,540	7,338	678,770,000	25,610	35,332	3,750,210,000
Kisii	34,104	23,558	2,084,148,757	48,336	30,704	3,692,673,400
Kericho	22,151	25,306	1,838,960,500	23,261	30,532	4,066,845,084
Makueni	33,539	12,061	1,085,915,950	53,244	0	2,510,566,600
Kisumu	26,980	12,558	1,896,930,000	30,755	29,675	4,328,130,000
Uasin Gishu	17,045	14,660	1,669,623,000	22,434	29,441	3,629,830,816
Migori	33,548	35,533	3,898,531,500	36,199	29,222	3,496,272,000
Kirinyaga	24,431	7,696	543,800,606	21,816	29,145	3,138,011,490
Nandi	32,840	28,646	2,210,955,486	30,277	28,324	3,864,751,055
Baringo	23,804	26,913	2,388,695,000	23,677	27,162	3,143,070,750
Homa Bay	38,739	28,203	2,798,761,198	28,052	25,157	3,263,085,000
Busia	21,528	17,765	2,041,345,000	23,069	23,120	2,350,840,000
Muranga	96,203	43,312	3,084,439,864	46,051	22,987	1,811,872,102
Siaya	35,005	18,329	1,952,353,778	36,840	17,577	1,969,199,565
T/Nithi	18,675	6,018	857,862,050	17,233	17,464	2,042,654,000

Bomet	29,891	34,849	4,276,437,750	12,803	15,475	730,850,000
Kitui	33,539	12,061	1,085,915,950	33,024	14,002	1,567,675,000
Nyamira	31,182	32,977	2,647,954,620	30,021	13,395	1,203,714,000
Embu	21,280	12,675	620,992,000	21,380	13,159	1,473,240,000
Kiambu	24,263	11,996	1,034,470,300	24,288	12,833	1,536,461,825
Nyeri	16,994	5,825	515,140,854	18,340	8,095	810,601,548
Laikipia	8,802	3,519	417,300,000	11,975	7,870	841,010,000
Vihiga	19,378	18,308	1,271,573,500	18,918	7,648	842,043,000
Samburu	5,380	1,937	215,200,000	4,897	5,590	706,330,000
Taita Taveta	2,942	3,417	271,655,000	3,837	4,106	325,683,919
Nyandarua	1,655	1,510	100,308,500	5,542	3,999	302,600,762
Wajir	-	-	-	415	601	107,460,000
Kwale	299	116	7,090,100	324	298	32,450,000
Nairobi	533	211	19,030,500	476	286	22,880,000
Isiolo	134	79	10,800,000	114	53	5,200,000
Garissa	11	11	1,120,000	46	27	2,820,000
Kilifi	58	42	3,885,000	57	24	1,690,100
Marsabit	310	4	240,000	19	11	1,890,000

Source: State Department for Crops Development & Agricultural Research (SDCDAR)

### Annex 23: Cow peas Production and Value, 2022-2023

County	2022			2023		
	Area (Ha)	Volumes (MT)	Value (KES)	Area (Ha)	Volumes (MT)	Value (KES)
Makueni	41,959	25,175	1,510,524,000	68,023	37,654	1,839,745,000
Kitui	67,538	69,292	5,260,367,000	79,095	35,826	1,570,800,000
Machakos	19,142	14,910	1,531,865,750	27,263	15,766	889,720,000
Tharaka Nithi	7,805	2,695	241,080,000	12,945	13,972	861,147,000
Embu	9,455	3,722	275,687,500	9,302	9,142	580,630,000
Kilifi	8,040	1,714	143,431,135	10,007	5,725	433,039,300
Lamu	14,040	12,539	1,004,560,000	9,350	5,708	570,800,000
Meru	5,307	3,154	172,592,500	8,993	3,893	247,570,000
Kwale	5,034	1,736	95,291,400	5,687	3,396	146,490,000
Tana River	2,058	2,516	139,802,250	2,080	2,809	142,315,000
Homa Bay	661	664	61,652,440	1,438	1,378	68,727,000
Kakamega	1,340	474	46,713,639	1,762	1,291	90,495,000
Kisumu	3,828	2,235	120,162,600	6,140	1,257	77,236,500
Taita Taveta	1,851	940	55,700,000	2,009	925	53,576,380
Baringo	946	1,133	87,000,000	919	860	73,032,500

Mandera	1,263	499	26,375,000	1,134	607	43,355,000
Busia	649	541	34,176,250	558	411	35,595,000
Muranga	1,324	582	35,386,293	663	280	22,924,550
West Pokot	-	-	-	615	277	27,669,318
Turkana	260	165	16,150,000	318	215	16,483,500
Mombasa	173	42	4,819,270	193	163	10,212,000
Kiambu	162	163	9,562,500	160	159	11,406,500
Elgeyo Marakwet	118	72	5,265,000	183	142	12,575,000
Migori	219	198	19,504,000	151	126	8,486,000
Wajir	37	16	1,020,000	62	109	7,610,000
Vihiga	20	12	1,170,000	64	100	8,477,000
Siaya	240	115	10,995,200	164	99	7,117,000
Samburu	110	39	4,371,200	98	97	5,557,500
Kisii	82	50	4,920,000	64	77	4,842,500
Marsabit	72	1	30,000	112	60	2,400,000
Kajiado	180	41	3,451,500	105	47	3,510,000
Nyamira	61	83	3,650,000	70	46	3,410,000
Nakuru	36	21	1,462,000	28	25	1,935,250
Garissa	68	66	2,370,000	48	25	1,150,000
Bungoma	87	51	5,570,750	25	20	1,968,000
Isiolo	20	10	1,293,750	27	8	610,000

Source: State Department for Crops Development & Agricultural Research (SDCDAR)

## Annex 24: Area, Production and Value of Green grams 2022-2023

COUNTY	2022			2023		
	Area (Ha)	Volumes (MT)	Value (KES)	Area (Ha)	Volumes (MT)	Value (KES)
Kitui	80,836	72,617	6,232,852,600	94,036	43,272	2,758,520,000
Makueni	50,202	17,766	1,342,648,000	76,212	39,903	2,807,415,000
Machakos	16,571	3,936	304,035,500	24,280	17,997	1,399,570,000
Lamu	21,360	28,896	2,890,800,000	14,300	13,594	1,359,400,000
Tharaka Nithi	13,630	3,271	423,249,000	28,340	11,336	799,506,000
Meru	5,138	3,428	284,679,100	13,561	7,256	727,445,000
Embu	11,667	4,710	407,065,900	8,425	6,680	427,860,000
Kilifi	8,046	2,378	250,898,750	9,260	6,394	593,752,750
Kwale	6,777	2,396	148,891,200	9,537	5,957	329,160,000
Tana River	3,263	3,961	268,568,500	3,119	4,210	320,416,000
Taita Taveta	3,706	1,652	124,495,000	5,012	3,477	273,545,000
Baringo	845	606	72,260,000	1,624	2,459	252,763,500
Kisumu	4,155	2,129	345,267,000	3,121	2,106	263,272,500
Homa Bay	612	574	60,565,600	936	885	100,808,600
West Pokot	81	91	10,896,000	1,259	638	81,952,799
Elgeyo Marakwet	581	196	19,075,000	453	413	51,111,000
Siaya	665	194	18,607,500	659	315	16,914,000
Migori	168	130	14,255,000	221	213	2,375,680
Turkana	190	47	4,550,000	292	204	18,300,000
Kirinyaga	121	10	862,861	256	196	23,520,000
Bungoma	165	84	10,238,250	237	135	11,356,000
Nakuru	-	-	-	100	104	7,290,000
Busia	219	107	11,008,500	217	100	9,407,600
Muranga	350	187	16,717,840	175	97	8,617,000
Garissa	21	23	1,530,000	113	91	8,580,000
Mandera	118	86	7,507,000	94	91	16,380,000
Marsabit	91	4	240,000	146	78	7,020,000
Kajiado	38	18	1,942,000	87	48	6,480,000
Trans Nzoia	-	-	-	53	44	5,335,000
Mombasa	50	10	1,383,480	57	39	3,766,000
Isiolo	22	18	2,767,500	47	27	2,780,000
Kakamega	110	41	4,267,500	30	22	1,512,000
Kiambu	16	8	800,000	20	13	1,512,000
Nairobi	6	3	215,000	4	3	70,000

Source: State Department for Crops Development & Agricultural Research (SDCDAR)

**Annex 25: Area, Production and Value of Pigeon peas 2022-2023**

COUNTY	2022			2023		
	Area (Ha)	Volumes (MT)	Value (KES)	Area (Ha)	Volumes (MT)	Value (KES)
Makueni	73,238	47,563	3,329,403,000	66,667	45,966	2,389,275,000
Meru	13,182	12,945	979,515,200	19,851	15,465	1,137,185,000
Machakos	28,457	13,526	985,952,500	29,725	12,257	864,775,000
Kitui	20,703	16,620	1,629,798,500	21,435	10,840	781,356,320
Tharaka Nithi	8,240	2,995	213,253,000	10,443	6,295	447,916,000
Taita Taveta	384	79	5,790,015	496	335	26,930,000
Lamu	1,060	636	63,600,000	500	300	36,000,000
Embu	1,140	671	57,060,000	860	141	16,200,000
Migori	190	300	35,000,000	155	124	8,680,000
Muranga	372	275	16,623,621	190	114	10,114,800
Kiambu	69	63	8,509,200	79	44	5,630,500
Kajiado	101	428	28,120,000	50	31	3,435,000
Kilifi	8	1	7,500	82	17	1,152,500

Source: State Department for Crops Development & Agricultural Research (SDCDAR)

**Annex 26: Area, Production and value of Sweet Potatoes 2022-2023**

COUNTY	2022			2023		
	Area (Ha)	Volumes (MT)	Value (KES)	Area (Ha)	Volumes (MT)	Value (KES)
Homa Bay	7,302	75,445	1,658,274,063	11,648	168,015	3,689,000,000
Migori	8,672	149,152	5,461,765,000	10,838	155,230	4,212,250,000
Siaya	7,160	69,534	2,188,030,000	7,440	84,540	3,494,800,000
Busia	3,468	57,748	2,469,420,000	4,235	60,576	2,616,440,000
Bungoma	2,019	33,911	679,315,000	1,735	22,068	363,520,000
Kisumu	2,995	26,600	1,678,800,000	3,174	29,580	1,960,200,000
Kakamega	3,347	26,319	1,122,638,000	3,222	21,166	326,300,000
Meru	1,125	16,935	715,200,000	1,407	18,481	745,247,000
Kiambu	965	9,827	463,036,200	946	10,128	313,121,000
Lamu	606	18,180	772,650,000	305	9,150	274,500,000
Taita Taveta	185	4,132	236,200,000	404	6,322	327,590,000
Muranga	1,142	9,953	474,232,700	599	6,191	228,375,290
Kisii	476	6,012	130,926,600	592	6,174	139,947,000
West Pokot	3	18	1,440,000	464	6,028	152,904,017
Trans Nzoia	452	5,882	122,154,000	454	5,475	134,152,800
Kirinyaga	419	3,109	113,642,000	440	5,225	152,648,000

Kwale	1,229	5,656	180,806,400	935	4,450	111,250,000
Vihiga	320	3,729	135,230,000	380	4,391	199,200,000
Nyeri	178	1,257	59,062,200	250	4,376	181,850,000
Embu	266	1,458	67,221,000	409	4,329	129,870,000
Bomet	1,452	27,253	952,445,000	841	4,240	106,637,650
Baringo	20	355	11,600,000	164	4,088	174,875,000
Kericho	504	5,544	131,040,000	334	4,041	109,117,800
Machakos	1,481	1,122	46,738,904	874	3,498	176,825,000
Nyamira	326	3,526	161,960,000	320	3,482	111,140,000
Tana River	78	1,461	85,620,250	143	2,860	137,800,000
Nandi	192	2,880	86,150,000	179	2,439	69,054,000
Turkana	20	100	2,000,000	156	2,329	88,674,000
Kitui	203	384	22,737,000	484	2,105	105,250,000
Elgeyo Marakwet	85	1,174	54,250,000	117	1,706	47,740,000
Makueni	456	4,458	267,480,000	204	1,409	62,700,000
Tharaka Nithi	107	549	29,230,000	125	1,054	47,150,000
Samburu	21	168	16,800,000	62	708	29,965,000
Uasin Gishu	32	376	10,700,000	43	660	21,375,000
Nakuru	105	396	18,449,990	104	540	13,674,500
Kilifi	67	391	19,550,000	130	501	18,705,000
Narok	1,122	21,071	377,152,500	58	352	12,549,600
Mombasa	26	230	13,430,000	32	338	13,626,000
Laikipia	40	167	10,854,000	64	320	16,000,000
Isiolo	23	120	9,800,000	34	258	12,900,000
Nairobi	23	153	8,197,500	32	228	9,116,750
Kajiado	31	58	2,830,000	29	90	3,750,000

Source: State Department for Crops Development & Agricultural Research (SDCDAR)

#### Annex 27: Area, Production and Value of Cassava 2022-2023

COUNTY	2022			2023		
	Area (Ha)	Volumes (MT)	Value (KES)	Area (Ha)	Volumes (MT)	Value (KES)
Homa Bay	9,586	205,658	4,375,691,434	13,407	316,707	6,773,940,960
Busia	15,686	267,666	10,948,120,000	16,989	285,116	14,208,960,000
Migori	13,825	175,067	5,669,070,000	13,852	175,668	5,262,049,000
Kilifi	5,998	79,061	2,162,636,000	6,923	85,579	1,150,705,000
Lamu	3,560	174,000	6,960,000,000	1,700	84,999	3,824,955,000
Siaya	3,606	39,756	890,120,000	3,930	73,960	1,178,000,000
Kwale	9,545	62,070	2,164,600,000	6,022	58,212	1,746,360,000

Kisumu	3,520	40,890	2,262,500,000	3,440	51,660	2,066,400,000
Kitui	414	1,025	59,633,875	4,036	11,886	707,760,000
Machakos	1,314	1,734	43,460,868	1,087	4,513	200,800,000
Taita Taveta	263	3,914	169,340,000	410	4,307	182,960,000
Makueni	420	4,190	251,400,000	370	3,888	173,220,000
Meru	368	2,839	109,620,000	491	3,778	112,800,000
West Pokot	-	-	-	343	3,433	119,851,072
Muranga	1,881	8,173	369,387,465	792	3,102	166,466,220
Bungoma	337	2,968	58,070,000	295	2,775	83,500,000
Mombasa	104	1,795	89,750,000	114	2,376	116,494,000
Elgeyo Marakwet	196	2,108	101,125,000	198	2,079	42,390,000
Baringo	9	98	5,090,000	69	1,975	101,750,000
Embu	182	2,274	53,650,000	350	1,647	62,910,000
Kakamega	357	1,230	31,005,000	302	1,702	59,570,000
Tana River	63	960	57,300,000	128	1,510	77,300,000
Tharaka Nithi	120	942	36,970,000	110	1,304	72,255,000
Kiambu	85	946	30,847,789	92	1,242	40,189,000
Nandi	87	1,896	56,303,940	73	1,069	28,630,000
Kisii	48	531	18,012,000	68	638	30,110,000
Narok	48	284	9,212,500	150	563	16,875,000
Kirinyaga	166	1,020	31,232,000	56	552	18,490,560
Vihiga	80	801	20,620,000	48	460	20,350,000
Trans Nzoia	38	367	13,083,637	47	452	16,440,000
Nakuru	103	628	27,069,000	78	377	12,044,875
Nyeri	9	81	3,083,395	5	84	2,760,000
Kajiado	2	6	360,000	14	82	4,090,000
Nairobi	5	8	245,000	9	66	2,765,000
Laikipia	8	142	7,100,000	14	30	1,200,000
Uasin Gishu	21	290	8,085,000	-	-	-

Source: State Department for Crops Development & Agricultural Research (SDCDAR)

**Annex 28: Area, Production and Value of Irish Potatoes, 2022-2023**

COUNTY	2022			2023		
	Area (Ha)	Volumes (MT)	Value (KES)	Area (Ha)	Volumes (MT)	Value (KES)
Nakuru	46,731	523,324	20,237,080,000	49,981	657,091	18,172,965,243
Nyandarua	19,590	101,099	3,277,935,000	43,587	437,748	9,797,520,487
Elgeyo Marakwet	28,670	388,225	11,241,450,000	25,143	259,252	8,253,900,000
Meru	20,520	185,731	7,160,424,000	24,604	236,407	10,576,651,000
Narok	12,742	87,981	3,550,750,000	19,775	204,898	6,182,340,000
Kiambu	19,156	97,539	3,347,911,576	19,206	102,645	4,958,266,000
West Pokot	1,858	36,757	739,100,000	8,009	96,109	2,504,640,085
Bungoma	9,436	118,596	5,337,475,000	7,985	88,618	4,113,400,000
Uasin Gishu	6,856	50,853	1,660,295,350	7,699	55,590	1,886,941,400
Baringo	3,504	35,664	1,453,120,000	3,565	37,205	864,675,000
Muranga	14,949	66,314	3,714,216,435	7,470	35,296	1,805,842,670
Nyeri	14,711	97,669	3,504,820,500	10,447	26,546	839,298,023
Laikipia	19,258	83,842	3,012,868,680	6,099	25,022	1,123,280,000
Trans Nzoia	2,765	46,904	2,006,495,000	2,073	24,614	1,127,535,543
Bomet	6,680	84,516	2,810,727,500	1,245	15,458	596,250,000
Nandi	629	10,270	285,373,220	644	6,611	285,293,000
Kericho	546	6,006	218,328,000	704	8,518	454,234,000
Kirinyaga	219	460	25,696,000	352	3,001	114,378,718
Taita Taveta	739	619	22,255,000	553	2,467	98,550,000
Embu	281	2,592	110,700,000	295	2,101	67,170,000
Samburu	50	450	36,000,000	322	2,355	141,300,000
Kajiado	1,459	14,119	494,202,500	389	840	20,530,000
Kisii	24	152	7,150,000	46	382	21,200,000
Makueni	45	270	10,800,000	75	330	13,333,340
Tharaka Nithi	20	4	200,000	21	183	3,975,000
Nairobi	19	99	3,320,000	26	135	6,075,000
Nyamira	22	220	9,400,000	20	122	7,080,000
Kakamega	14	165	7,650,000	8	90	2,343,750
Homa Bay	3	9	225,000	13	79	450,000

Source: State Department for Crops Development & Agricultural Research (SDCDAR)

**Annex 29: Import Volumes and Values in 2023**

<b>SOURCE</b>	<b>QUANTITY (MT)</b>	<b>CIF VALUE (KES)</b>	<b>CIF VALUE (KES) PER MT</b>	<b>IMPORT SHARE (%)</b>
<b>Maize</b>				
Tanzania	216,849.97	6,835,927,831.00	31,523.77	44.39
South Africa	155,448.41	8,097,429,636.00	52,090.78	31.82
Ukraine	44,256.91	1,902,899,495.00	42,996.66	9.06
Russian Federation	33,929.89	1,374,997,979.40	40,524.68	6.95
Turkey	25,000.00	1,050,779,108.00	42,031.16	5.12
Uganda	10,444.40	710,004,850.00	67,979.48	2.14
Others	2,605.63	50,815,085.00	19,502.03	0.54
<b>Total</b>	<b>488,535.21</b>	<b>20,022,853,984.40</b>	<b>40,985.49</b>	<b>100.00</b>
<b>Wheat</b>				
Russian Federation	1,452,169.87	63,528,284,630.00	43,747.14	72.98
Ukraine	119,291.00	5,394,434,794.00	45,220.80	5.99
Canada	80,049.29	4,496,376,471.00	56,170.10	4.02
USA	76,000.00	4,867,145,141.00	64,041.38	3.82
Australia	67,483.72	3,158,085,358.00	46,797.74	3.39
Germany	61,297.73	2,718,534,043.00	44,349.67	3.08
Latvia	47,000.00	1,936,763,804.00	41,207.74	2.36
Lithuania	42,313.15	1,885,967,725.00	44,571.67	2.13
Netherlands	25,000.00	1,390,203,451.00	55,608.14	1.26
Others	19,327.27	786,980,772.00	40,718.67	0.97
<b>Total</b>	<b>1,989,932.03</b>	<b>90,162,776,189.00</b>	<b>45,309.48</b>	<b>100</b>
<b>Barley</b>				
United Kingdom	1.11	284,073.00	255,921.62	67.68
India	0.50	38,001.00	76,002.00	30.49
Mexico	0.03	8,439.00	281,300.00	1.83
<b>Total</b>	<b>1.64</b>	<b>330,513.00</b>	<b>201,532.32</b>	<b>100.00</b>
<b>Rice</b>				
India	634,686.32	37,652,113,914.00	59,323.97	68.18
Pakistan	257,487.22	13,866,212,216.00	53,852.04	27.66
United Arab Emirates	12,955.56	948,679,002.00	73,225.63	1.39
Korea Republic	11,000.28	633,078,717.00	57,551.15	1.18
Thailand	7,429.67	568,318,817.00	76,493.14	0.80
Mauritius	4,671.75	290,166,491.00	62,110.88	0.50
Others	2,699.22	241,282,709.43	89,389.79	0.29
<b>Total</b>	<b>930,930.02</b>	<b>54,199,851,866.43</b>	<b>58,221.19</b>	<b>100.00</b>

<b>Sorghum</b>				
Australia	67,792.50	4,311,068,157.00	63,592.11	88.86
Tanzania	4,443.90	173,501,513.00	39,042.62	5.83
United State of America	4,000.00	263,747,960.00	65,936.99	5.24
Others	52.58	1,912,304.00	36,369.42	0.07
<b>Total</b>	<b>76,288.98</b>	<b>4,750,229,934.00</b>	<b>62,266.27</b>	<b>100.00</b>
<b>Millet</b>				
Ethiopia	1,394.65	27,931,165.00	20,027.37	94.73
Tanzania	55.00	1,769,110.00	32,165.64	3.74
China	16.19	1,503,832.00	92,886.47	1.10
India	2.45	268,431.00	109,563.67	0.17
Poland	1.67	1,731,027.00	1,036,543.11	0.11
France	0.99	381,540.00	385,393.94	0.07
UAE	0.75	714,840.00	953,120.00	0.05
Others	0.52	667,597.00	1,283,840.38	0.03
<b>Total</b>	<b>1,472.22</b>	<b>34,967,542.00</b>	<b>23,751.57</b>	<b>100.00</b>
<b>Beans</b>				
Ethiopia	29,680.33	651,021,916.00	21,934.46	55.29
Tanzania	23,628.00	1,008,422,934.00	42,679.15	44.02
United State of America	116.00	125,747,080.00	1,084,026.55	0.22
Malawi	110.00	4,253,091.00	38,664.46	0.20
France	70.04	59,739,733.00	852,937.36	0.13
Chile	28.30	32,806,547.00	1,159,241.94	0.05
South Africa	26.01	19,645,508.00	755,305.96	0.05
Others	17.83	17,559,908.87	984,851.87	0.03
<b>Total</b>	<b>53,676.51</b>	<b>1,919,196,717.87</b>	<b>35,754.87</b>	<b>100.00</b>
<b>Cowpeas</b>				
Tanzania	12.16	1,403,264.00	115,400.00	100.00
<b>Total</b>	<b>12.16</b>	<b>1,403,264.00</b>	<b>115,400.00</b>	<b>100.00</b>
<b>Green Grams</b>				
Tanzania	5,371.00	206,360,958.00	38,421.33	98.72
Burma	25.00	3,752,275.71	150,091.03	0.46
India	21.00	3,436,507.00	163,643.19	0.39
Ethiopia	19.60	201,300.00	10,270.41	0.36
United Arabs Emirates	3.50	1,033,014.15	295,146.90	0.06
Others	0.50	376,544.31	753,088.62	0.01
<b>Total</b>	<b>5,441.00</b>	<b>21,516,055,917.00</b>	<b>3,954,430.42</b>	<b>100.00</b>

<b>Pigeon peas</b>				
Tanzania	3,251.00	139,175,668.00	42,810.11	99.21
Malawi	26.00	4,559,605.66	175,369.45	0.79
<b>Total</b>	<b>3,277.00</b>	<b>143,735,273.66</b>	<b>43,861.85</b>	<b>100.00</b>
<b>Sweet Potatoes</b>				
China	0.75	51,052.00	68,069.33	100.00
<b>Total</b>	<b>0.75</b>	<b>51,052.00</b>	<b>68,069.33</b>	<b>100.00</b>
<b>Cassava</b>				
Tanzania	191.00	11,236,572.00	58,830.22	100.00
Ghana	0.01	460.00	57,500.00	00.00
<b>Total</b>	<b>191.01</b>	<b>11,237,032.00</b>	<b>58,829.55</b>	<b>100.00</b>

Source: State Department for Crops Development & Agricultural Research (SDCDAR) and Kenya Revenue Authority

### Annex 30: Export Volumes and Values in 2023

<b>DESTINATION</b>	<b>QUANTITY (MT)</b>	<b>VALUE (KES)</b>	<b>VALUE (KES) PER MT</b>	<b>EXPORT SHARE (%)</b>
<b>Maize</b>				
Tanzania	37.47	2,448,210.00	65,337.87	30.04
Uganda	35.91	9,676,268.00	269,458.87	28.79
Qatar	14.35	1,804,700.00	125,763.07	11.50
Rwanda	10.76	2,737,859.00	254,447.86	8.63
Netherlands	6.70	1,674,912.00	249,986.87	5.37
United Kingdom	5.41	2,728,505.00	504,344.73	4.34
South Sudan	4.20	234,312.00	55,788.57	3.37
United Arab Emirates	3.45	1,768,201.00	512,522.03	2.77
South Africa	2.71	1,720,720.00	634,952.03	2.17
United States of America	2.64	671,414.00	254,323.48	2.12
Others	1.15	407,726.00	354,544.35	0.92
<b>Total</b>	<b>124.75</b>	<b>25,201,413.00</b>	<b>202,015.33</b>	<b>100.00</b>
<b>Wheat</b>				
Uganda	8,201.66	102,792,862.00	12,533.18	94.14
Somalia	510.00	26,633,601.00	52,222.75	5.85
Others	0.13	2,551.00	19,623.08	0.00
<b>Total</b>	<b>8,711.79</b>	<b>129,429,014.00</b>	<b>14,856.76</b>	<b>100.00</b>
<b>Barley</b>				

Uganda	27,635.08	315,509,817.00	11,417.00	100.00
France	0.04	1,189.00	29,725.00	0.00
<b>Total</b>	<b>27,635.12</b>	<b>315,511,066.00</b>	<b>11,417.03</b>	<b>100.00</b>
<b>Rice</b>				
DRC	863.10	81,423,856.00	94,338.84	62.90
Rwanda	241.15	22,523,463.00	93,400.22	17.58
South Sudan	233.77	26,560,228.00	113,616.92	17.04
United States of America	10.39	2,706,754.00	260,515.30	0.76
Aircraft & Ship stores	10.02	3,095,605.00	308,942.61	0.73
Uganda	4.36	1,226,182.00	281,234.40	0.32
Australia	2.05	573,829.00	279,916.59	0.15
Singapore	1.77	450,744.00	254,657.63	0.13
Qatar	1.32	296,491.00	224,614.39	0.10
Oman	0.98	121,577.00	124,058.16	0.07
Indonesia	0.93	225,630.00	242,612.90	0.07
South Africa	0.73	160,493.00	219,853.42	0.05
Others	1.51	307,319.00	203,522.52	0.11
<b>Total</b>	<b>1,372.08</b>	<b>139,672,171.00</b>	<b>101,795.94</b>	<b>100.00</b>
<b>Sorghum</b>				
Uganda	17,349.45	990,743,797.00	57,105.20	60.97
South Sudan	11,105.60	632,111,747.00	56,918.29	39.03
Others	0.04	5,633.00	140,825.00	0.00
<b>Total</b>	<b>28,455.09</b>	<b>1,622,861,177.00</b>	<b>57,032.37</b>	<b>100.00</b>
<b>Millet</b>				
Burundi	1,624.90	124,400,294.00	76,558.97	61.42
Saudi Arabia	417.90	63,406,828.00	151,727.64	15.80
Israel	337.00	26,511,766.00	78,669.93	12.74
Canada	182.70	11,427,666.00	62,548.80	6.91
USA	81.68	7,201,942.00	88,172.65	3.09
Others	1.29	96,058.00	74,637.14	0.04
<b>Total</b>	<b>2,645.46</b>	<b>233,044,554.00</b>	<b>88,092.23</b>	<b>100.00</b>
<b>Beans</b>				
India	6,121.24	903,058,183.00	147,528.64	90.0911031
Pakistan	392.09	57,357,838.00	146,287.43	5.770696887
South Sudan	144.34	23,177,783.00	160,577.68	2.124365295
Singapore	129.63	28,280,891.00	218,166.25	1.907866657
Others	7.20	3,820,725.00	530,656.25	0.105968062
<b>Total</b>	<b>6,794.50</b>	<b>1,015,695,420.00</b>	<b>149,487.88</b>	<b>100.00</b>

<b>Cow peas</b>				
India	1,923.05	200,040,828.00	104,022.90	74.01
Other Countries	375.00	39,884,340.00	106,358.24	14.43
Nes				
UAE	217.00	22,407,152.00	103,258.76	8.35
Pakistan	42.00	1,908,856.00	45,448.95	1.62
USA	29.40	5,851,384.00	199,026.67	1.13
United Kingdom	10.00	890,347.00	89,034.70	0.38
Others	1.96	409,330.00	209,268.92	0.08
<b>Total</b>	<b>2,598.40</b>	<b>271,392,237.00</b>	<b>104,445.82</b>	<b>100.00</b>
<b>Green Gram</b>				
Vietnam	2,809.00	335,591,401.00	119,470.06	32.17
United Arab Emirates	1,700.15	173,142,876.00	101,839.76	19.47
Thailand	1,600.00	172,858,055.00	108,036.28	18.33
Philippines	1,100.00	113,584,689.00	103,258.81	12.60
Nepal	555.30	56,425,855.00	101,613.28	6.36
Somalia	180.00	20,505,488.00	113,919.38	2.06
South Africa	147.00	18,498,950.00	125,843.20	1.68
France	126.03	14,347,377.00	113,840.97	1.44
India	125.00	13,410,050.00	107,280.40	1.43
Indonesia	100.00	10,167,153.00	101,671.53	1.15
Malaysia	75.00	8,543,826.00	113,917.68	0.86
Pakistan	75.00	7,228,016.00	96,373.55	0.86
Netherlands	42.87	9,764,374.00	227,767.06	0.49
Qatar	27.58	1,535,982.00	55,691.88	0.32
Tanzania	25.00	65,250.00	2,610.00	0.29
Uganda	20.00	582,400.00	29,120.00	0.23
Saudi Arabia	13.98	1,774,262.00	126,914.31	0.16
United Kingdom	5.68	1,664,651.00	293,072.36	0.06
DRC	1.75	490,158.00	280,090.29	0.02
South Sudan	0.86	98,556.00	114,600.00	0.01
USA	0.49	72,600.00	148,163.27	0.01
Others	0.16	36,277.00	226,731.25	0.00
<b>Total</b>	<b>8,730.85</b>	<b>960,388,246.00</b>	<b>109,999.40</b>	<b>100.00</b>
<b>Pigeon peas</b>				
India	9,349.89	1,310,807,506.00	140,194.97	98.43
Belgium	75.00	13,348,513.00	177,980.17	0.79

Cape Verde Islands	50.00	8,410,308.00	168,206.16	0.53
USA	22.29	3,779,806.00	169,574.07	0.23
Oman	1.93	14,402.00	7,481.56	0.02
Uganda	0.31	56,445.00	180,913.46	0.00
<b>Total</b>	<b>9,499.42</b>	<b>1,336,416,980.00</b>	<b>140,684.06</b>	<b>.00</b>
<b>Sweet Potatoes</b>				
Somalia	208.19	18,177,859.00	87,313.80	90.43
Austria	14.50	2,144,871.00	147,922.14	6.30
Others	7.52	765,716.00	101,823.94	3.27
<b>Total</b>	<b>230.21</b>	<b>21,088,446.00</b>	<b>91,605.26</b>	<b>100.00</b>
<b>Cassava</b>				
DRC	2.46	866,026.00	352,043.09	60.35
United Kingdom	1.44	1,150,400.00	798,888.89	35.33
Somalia	0.18	36,860.00	204,777.78	4.32
<b>Total</b>	<b>4.08</b>	<b>2,053,286.00</b>	<b>503,256.37</b>	<b>100.00</b>
<b>Irish Potatoes</b>				
Uganda	78,540.08	727,142,430.00	9,258.23	99.74
South Sudan	138.95	8,575,532.00	61,716.68	0.18
Kuwait	28.00	829,742.00	29,633.64	0.04
Somalia	21.90	549,000.00	25,068.49	0.03
DRC	13.70	740,000.00	54,014.60	0.02
Others	2.68	598,478.00	223,312.69	0.00
<b>Total</b>	<b>78,745.31</b>	<b>738,435,182.00</b>	<b>9,377.51</b>	<b>100.00</b>

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