



# Policy Brief

*Thinking Policy Together*

**No. 68/2023-2024**

## **Assessing Labour Productivity for Machakos County**

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### **Introduction**

Machakos County is a member of the South-Eastern Kenya *Economic Bloc* (SEKEB). The county is classified as a semi-arid county that experiences between 30-84 per cent aridity levels. The county's land size is 6,043 km<sup>2</sup> and has four sub-counties namely: Masinga, Matungulu, Mwala, and Yatta.

### **Key Highlights**

The productivity of Machakos County is characterized by the following.

- i. The service sector dominates the Gross Value Added (GVA). Dairy farming is emerging with potential in livestock production. Manufacturing dominates the industry sector, while the wholesale and retail trade sector dominates the services sector.
- ii. Quality of labour requires interventions to reduce stunting, teenage pregnancy, and child poverty.
- iii. Essential infrastructure requires interventions to increase access to electricity, internet connectivity, and improved water.
- iv. Agriculture is the highest employer with the majority practicing mixed farming. In manufacturing, employment is in textiles and manufacture of machinery and

equipment industries. In the wholesale and retail trade, employment is in the retail of food, beverages, and tobacco products.

- v. Labour productivity is highest in the industry sector, while agriculture has the least labour productivity. Mining had the highest labour productivity in the industry while the real estate sub-sector had higher labour productivity in the services sector.

To enhance productivity, there is a need to:

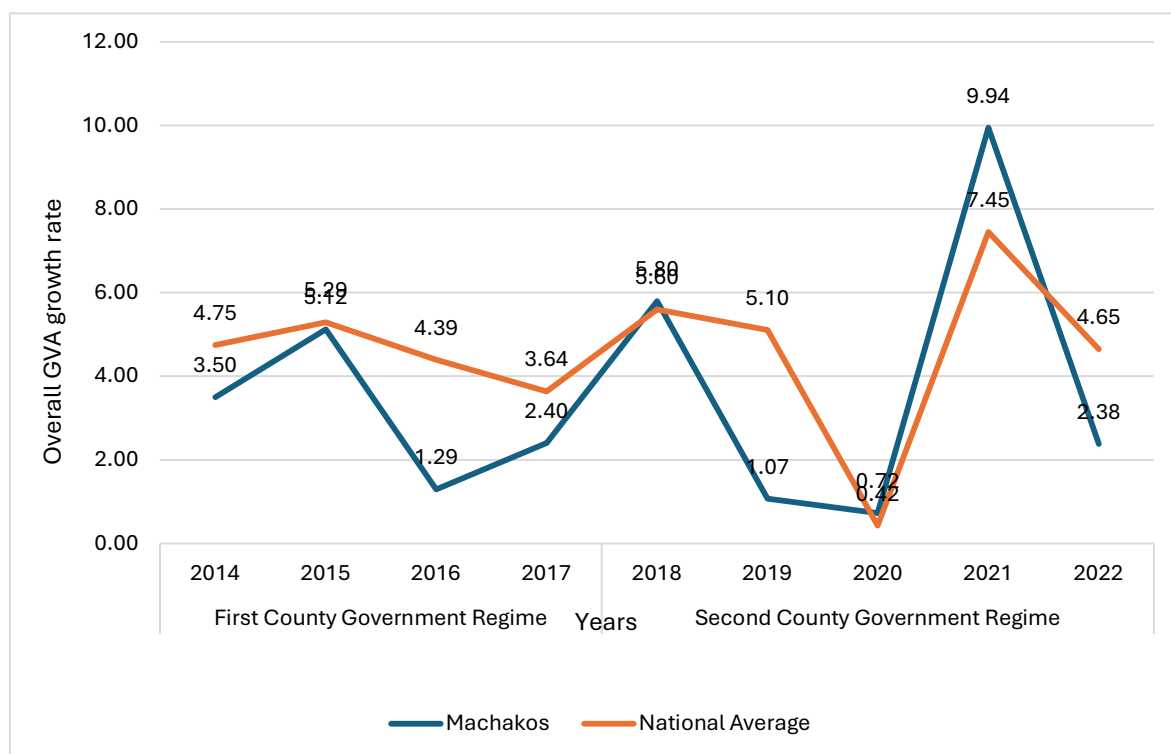
- i. Build climate resilience in agriculture by growing drought-resistant and fast-maturing crops, increasing uptake of crop insurance, using information from the early warning systems to inform crop production, and integrating small-scale farmers into the livestock value chains.
- ii. Improve the quality of labour by implementing nutrition-sensitive programmes, creating awareness, and supporting teenage mothers to go back to school.
- iii. Invest in essential infrastructure including access to electricity, internet connectivity, and improved water.
- iv. Exploit the potential in the mining sub-sector.

### **Machakos County Economic Performance**

Machakos County contributes an average of 3.4 per cent to the National Gross Value Added with an average GVA size of Ksh 255, 4509 million. The GVA per capita for Machakos County is Ksh 179,654.87 with an average population growth rate of 1.2 per cent and overall poverty levels at 35.60 per cent.

Machakos County has shown steady growth in GVA with an average growth rate of 3.58 per cent from 2013-2022, which is below the national average growth of 4.37 per cent as shown in Figure 1. The highest growth rate was experienced in 2021 while the lowest growth rate was experienced in 2020.

**Figure 1: Machakos County GVA growth rate**

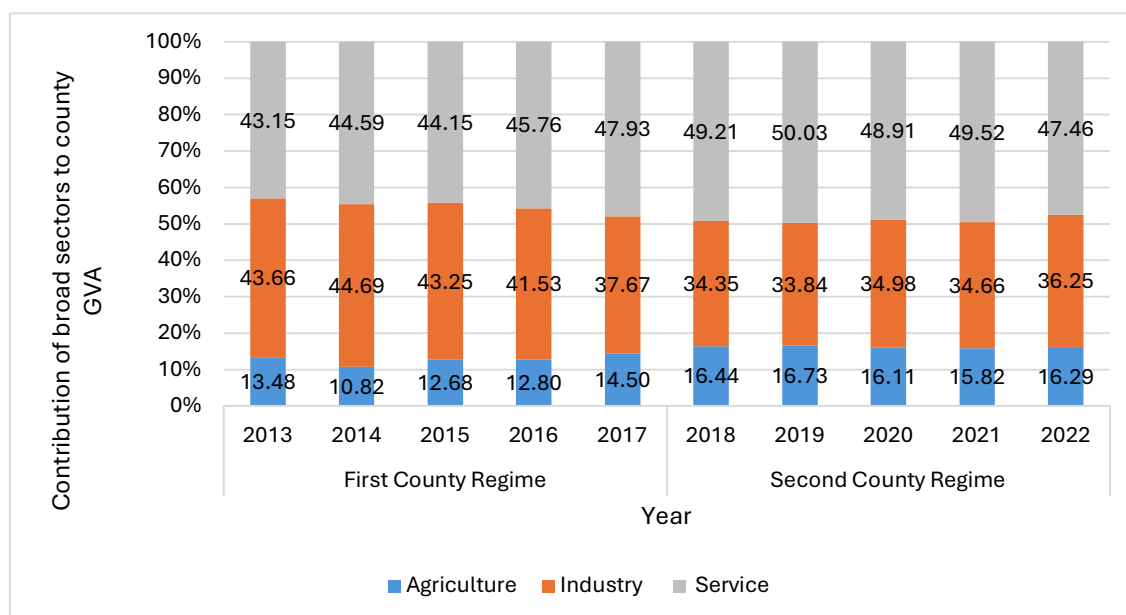


Data source: GCP 2023

**Sectoral Analysis of Machakos County GVA**

The service sector is dominant in Machakos County with an average contribution to GVA of 47.07 per cent. The industry sector is second, contributing an average of 38.49 per cent to the GVA while agriculture contributes about 14.57 per cent as shown in Figure 2.

**Figure 2: Contribution of broad sectors to Machakos County GVA**

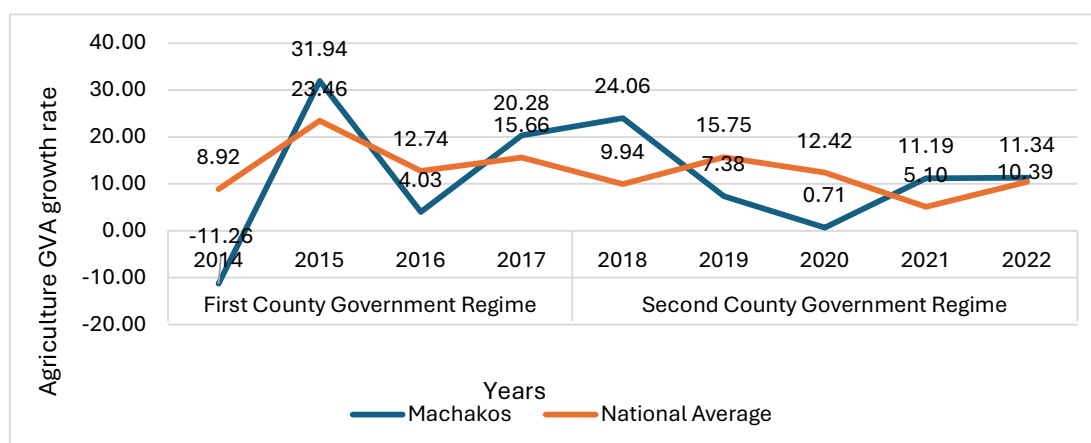


Data source: GCP 2023

**Agriculture Sector**

The average agriculture GVA growth rate (2013-2022) for Machakos County is 11.07 per cent, which is below the national average of 12.71 per cent as shown in Figure 3.

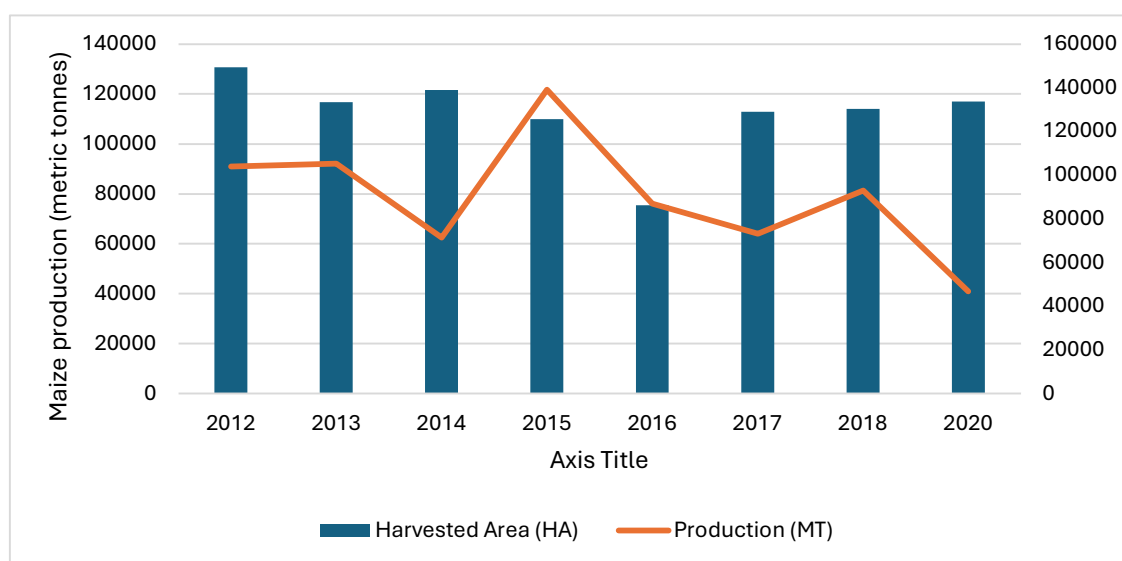
**Figure 3: Machakos County agriculture GVA growth rate**



Data source: GCP 2023

Despite the comparatively lower share of county GVA among the broad sectors, agriculture is a main source of livelihood in Machakos County. It not only enhances food security and earns income but is also a source of raw materials for the manufacturing sector. The common farming systems are mixed farming and crop production. Maize, pigeon pea, cowpeas are the common crops produced in Machakos County. Maize, the main staple food in the country is also the main food crop produced in Machakos County. Although the area of maize production has been relatively constant over the years, maize production has been fluctuating and generally declining (Figure 4).

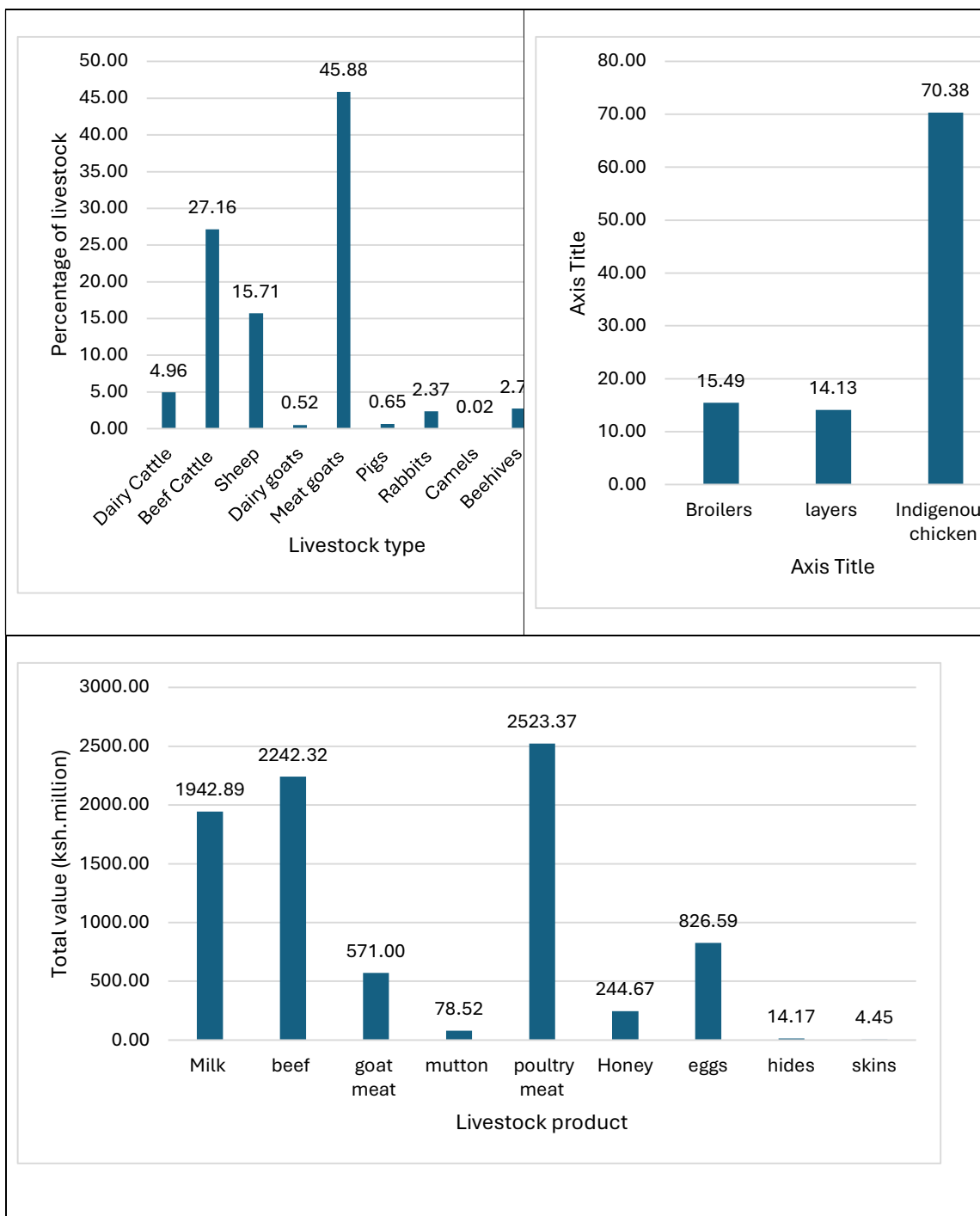
**Figure 4: Maize production**



*Data source: NIPFN*

Livestock production in Machakos County is on a smaller scale as compared to crop production. The most common types of livestock in the county are beef cattle, sheep, and meat goats. Poultry production is also significantly high in the county and moderately diversified with the most common type being indigenous chicken. Poultry meat, beef, milk, and eggs have the highest economic value in the county (Figure 5). The county has a high potential for poultry farming, dairy farming, and apiculture.

**Figure 5: Livestock production statistics**

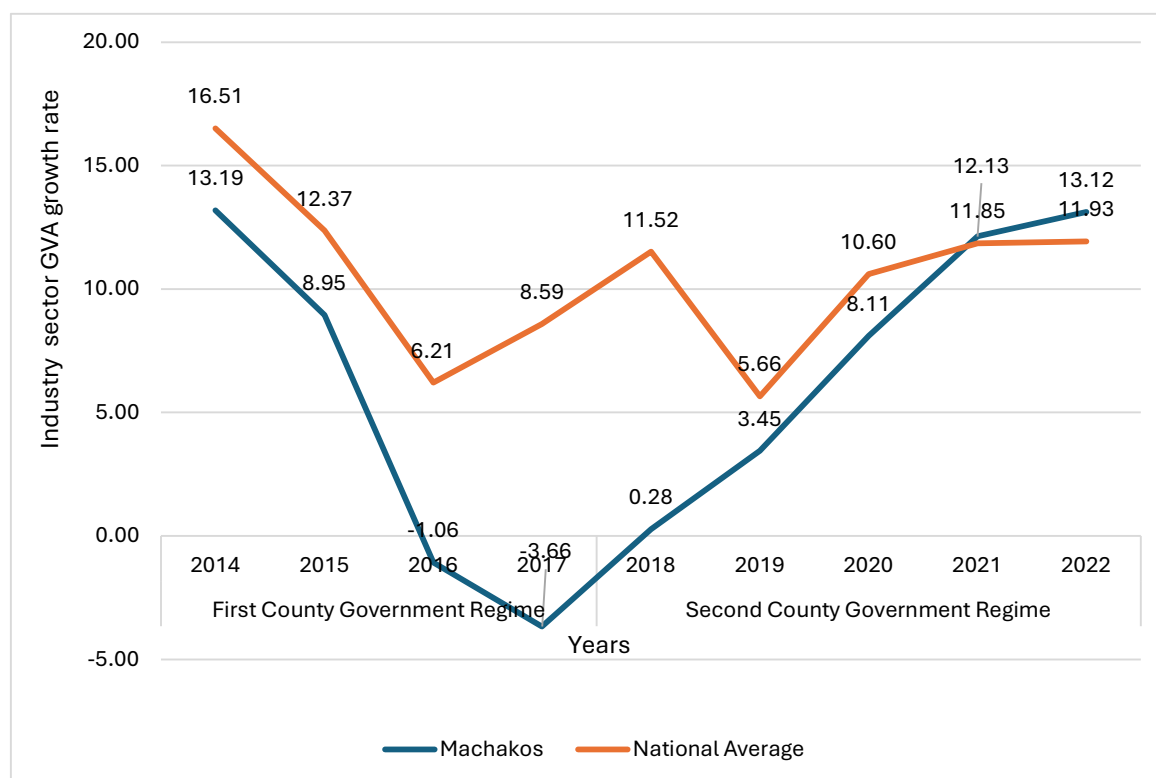


Data source: NIPFN

## Industry Sector

The average industry sector growth rate for Machakos County is 6.06 per cent, which is below the national average of 10.58 per cent as shown in Figure 6.

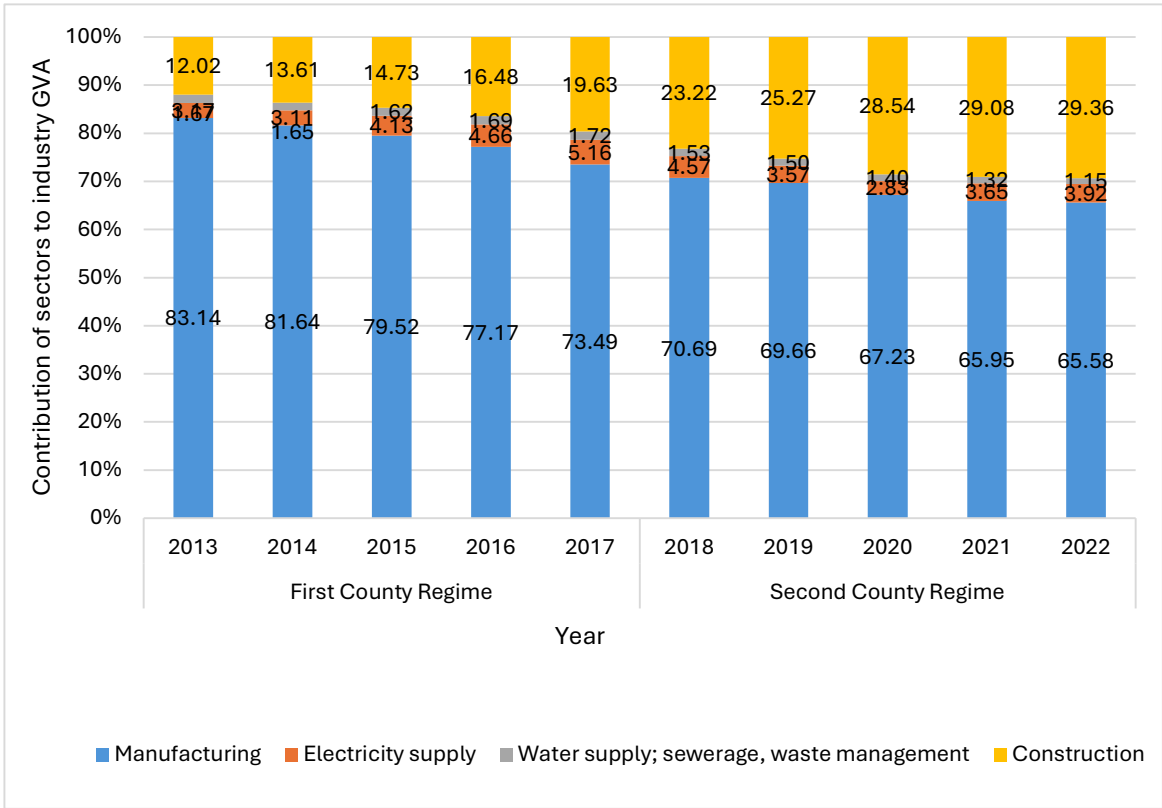
**Figure 6: Machakos County Industry GVA growth rate**



Data source: GCP 2023

Manufacturing dominates the industry sector as shown in Figure 7. Despite the dominance, the share of manufacturing in industry GVA is steadily declining as that of the construction sector expands.

**Figure 7: Contribution of industry sub-sectors to the overall sector GVA**



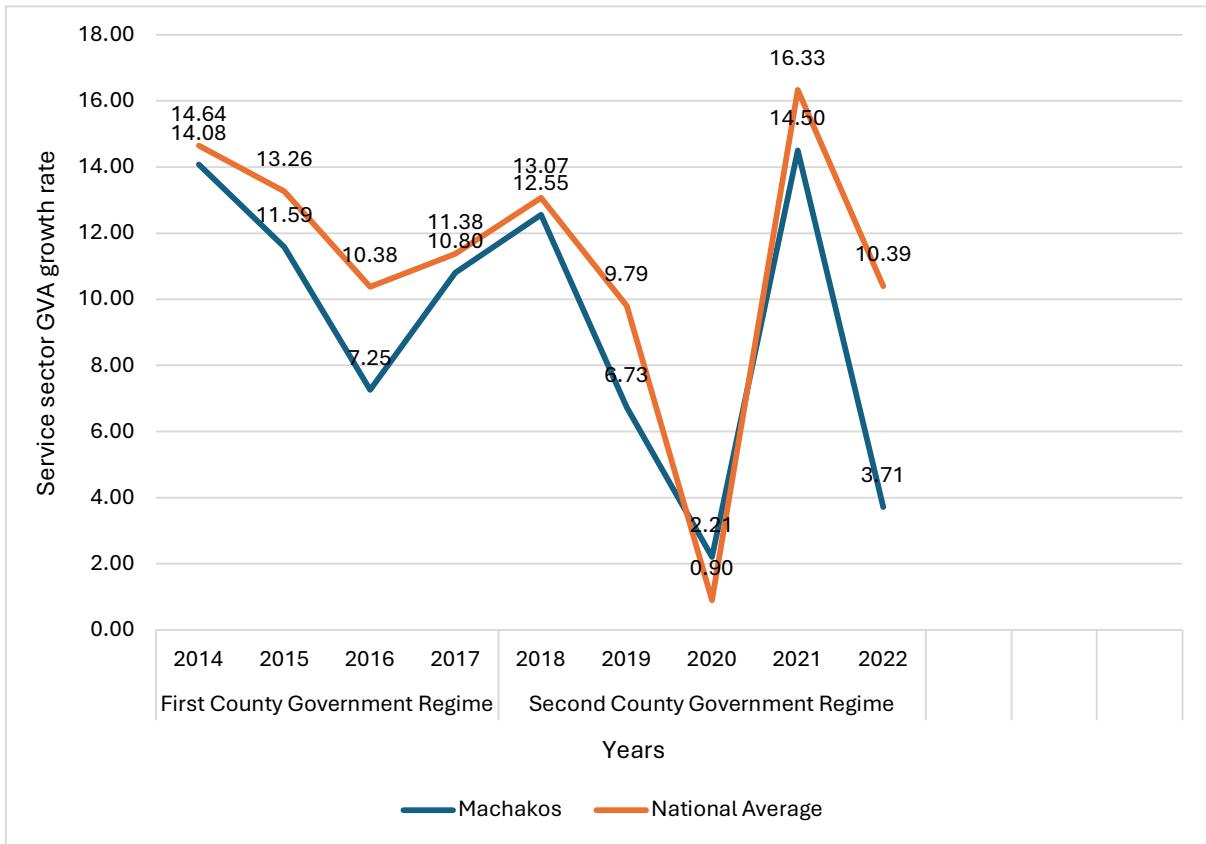
Data source: GCP 2023

**Services Sector**

The average service sector growth rate is 8.74 per cent, which is below the national average of 11.13 per cent as shown in Figure 8.



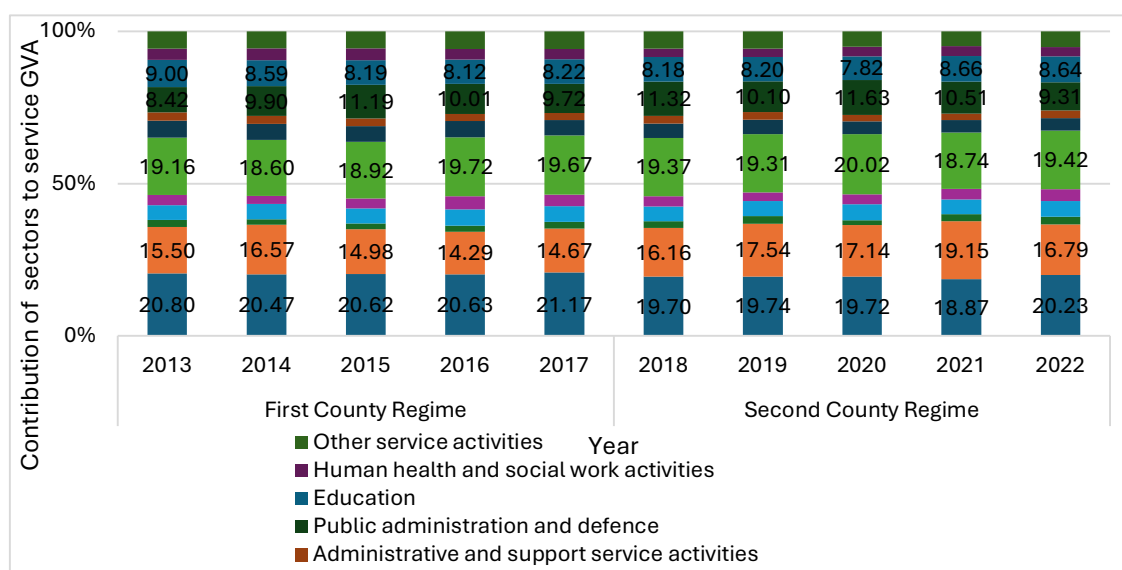
**Figure 8: Machakos County services sector GVA growth rate**



*Data source: GCP 2023*

The wholesale and retail trade sub-sector dominates the services sector with the highest contribution to service GVA at 20.20 per cent. The real estate sub-sector is the second highest contributor to services GVA at 19.29 per cent. The transportation and storage sector sub-sector is third with an average of 16.28 per cent as shown in Figure 9.

**Figure 9: Contribution of sectors to service sector GVA**



Data source: GCP 2023

### Quantity and Quality of Labour Force for Machakos County

Machakos County has a total working-age population of 111,084, which is about 65.11 per cent of the total county population. The majority of the working-age population is youthful (18-34 years) at 49.15 per cent as shown in Table 1.

**Table 1: Distribution of the working-age population by age categories**

Working population age	Male	Female	Total	Percentage of total working age population (%)
15-17	4,950	4,762	9,712	8.74
18-24	11,472	11,904	23,376	21.04
25-34	15,841	15,384	31,225	28.11
35-64	24,015	22,756	46,771	42.10
<b>Total</b>	<b>56,278</b>	<b>54,806</b>	<b>111,084</b>	

Data source: KPHC, 2019

The majority of the population in Machakos sub-counties are persons in the working age categories. Matungulu has the highest percentage of persons of working age at 60.93 per cent as shown in Table 2.

**Table 2: Sub-county distribution of working-age population by age category**

Sub-county	Total population	Working age population categories				Working age population (15-64) as a percentage of the total sub-county population
		15-17	18 –24	25 –34	35-64	
Masinga	148,520	12,021 (14.29)	17,392 (20.68)	18,858 (22.42)	35,829 (42.60)	84,100 (56.63)
Matungulu	161,552	11,145 (11.32)	19,101 (19.40)	23,487 (23.86)	44,703 (45.41)	98,436 (60.93)
Mwala	181,893	14,460 (13.46)	20,874 (19.42)	22,979 (21.38)	49,150 (45.74)	107,463 (59.08)
Yatta	172,581	13,472 (13.19)	22,783 (22.31)	23,744 (23.25)	42,106 (41.24)	102,105 (59.16)

*Data source: KPHC 2019*

Machakos County has high socioeconomic indicators that affect the quality of labour as reported in Table 3. However, interventions are required to reduce stunting, teenage pregnancies and child poverty.

**Table 3: Human capital indicators**

Human capital indicators	County	National average
Literacy rate	92.40	78.41
Pre-primary net enrolment rate (2019)	80.60	67.51
Primary school net enrolment rate (2020)	87.20	77.72
Secondary school net enrolment rate (2020)	69.80	54.18
Average years of schooling (2014)	8.30	7.78
Percentage of children 12 -23 months fully vaccinated (%)	90.00	74.97
Percentage of stunted children	16.20	19.75
Percentage of teenage pregnancy	11.30	15.79
Primary to secondary transition rates (2020)	88.70	86.13
Pupil-teacher ratio (primary school)	24.00	28.28
Food poverty headcount (%)	29.00	33.63
Child poverty headcount (%)	32.80	42.67

*Data source: KDHS 2022, KPHC 2019, Basic Education Statistical Booklet, 2020, 2021 KNBS Kenya Poverty Report*

The majority of the essential infrastructure that supports the growth of county GVA is higher than the national averages (Table 4). Interventions are needed to increase internet connectivity in schools and access to improved water.

**Table 4: Essential infrastructure and capital indicators**

Essential infrastructure indicators	County	National average
Percentage of households with access to electricity (2019 Census)	48.30	38.52
Distribution of Population using the Internet (2019 census)	25.80	18.69
Rural Access Index (2018)	82.25	63.72
Access to improved sanitation (2018)	84.00	59.04
Access to improved water (2018)	68.40	65.33
Financial inclusion level (2021)	89.60	81.01
The proportion of Primary Schools with Internet	28.20	27.65
Proportion of secondary schools with functional internet	25.30	35.13
Percentage of households by housing material composite-finished materials(adequate) (2019)	89.05	51.71
Percentage of Households using Bank usage (Overall)	45.70	38.18
Percentage of Households using Mobile Money)	83.40	78.58

*Data sources: KRB 2018, KPHC 2019, FinAccess 2021, KIHBS 2015/16, Basic Education Statistical Booklet, 2020*

### County Employment Statistics

The employment-to-population ratio is 67.53 per cent. The majority of those working is the non-youth working population (35-64 years) at 36.56 per cent while that of the youth (18- 34 years) is at 30.27 per cent. The percentage of the employed by gender is 46.92 per cent for males and 47.37 per cent for females. The unemployment rate is at 8.61 per cent with unemployment being slightly higher for the youth (18-34 years) at 5.54 per cent and those between 35-64 years at 2.95 per cent.

The percentage of persons between 5-17 years working is 1.86 per cent indicating that the county has low levels of child labour. The inactivity rates are higher for the youth category (15-24 years) at 18.39 per cent, which is expected as they are pursuing schooling while low for the persons of prime age (25-64 years) at 4.74 per cent.

**Table 5: Machakos County employment statistics**

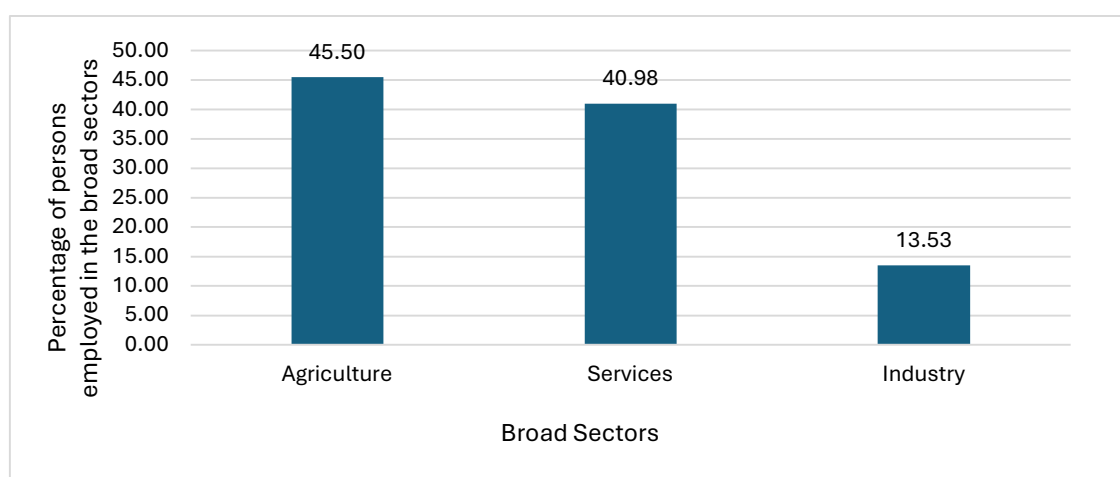
Employment statistics	Youth	Non-youth
Employment to population ratio (%)	30.27	36.56
Unemployment rate	5.54	2.95
Percentage of persons 5–17 years old working	1.86	-
Inactivity rate	18.39	4.74

*Data source: KPHC 2019*

### Sectoral Employment

The agriculture sector is the highest employer in Machakos County at 45.50 per cent followed by the services sector at 40.98 per cent. The industry sector is third at 13.53 per cent as shown in Figure 10.

**Figure 10: Percentage of persons employed in the broad sectors**

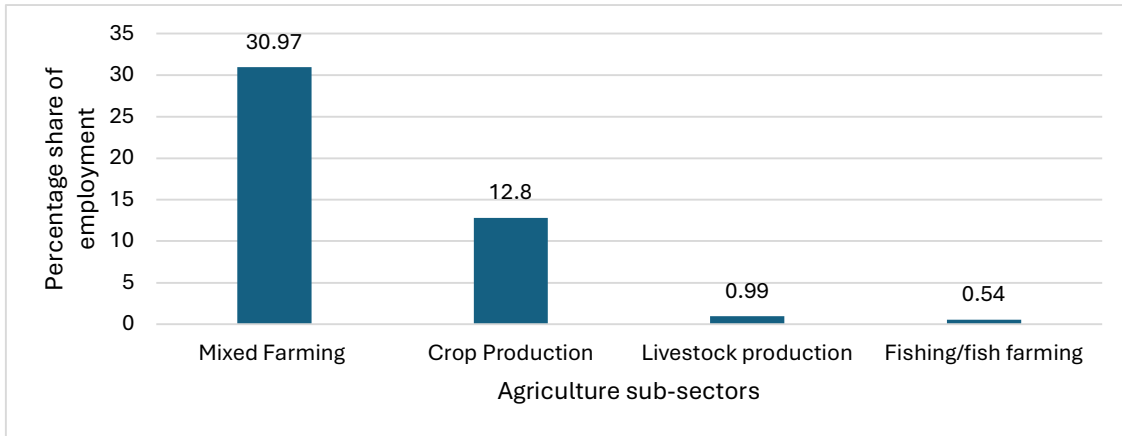


*Data source: KCHS 2021*

### Agriculture Sector

In agriculture, the majority are those practicing mixed farming as shown in Figure 11.

**Figure 11: Percentage share of employment in agriculture sub-sectors**

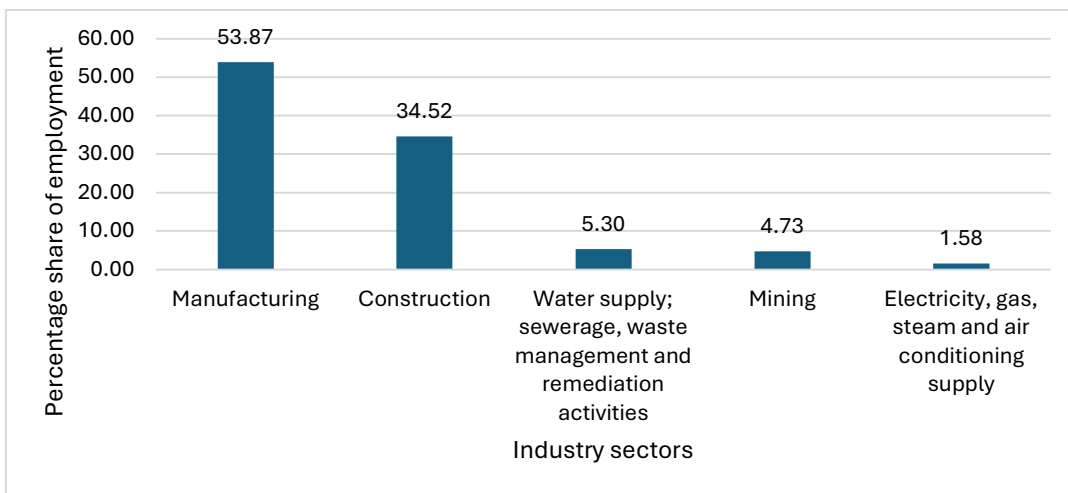


Data source: KCHS 2021

### Industry Sector

The majority of those working in the industry sector are in manufacturing. Mining is mainly quarrying of stones as shown in Figure 12.

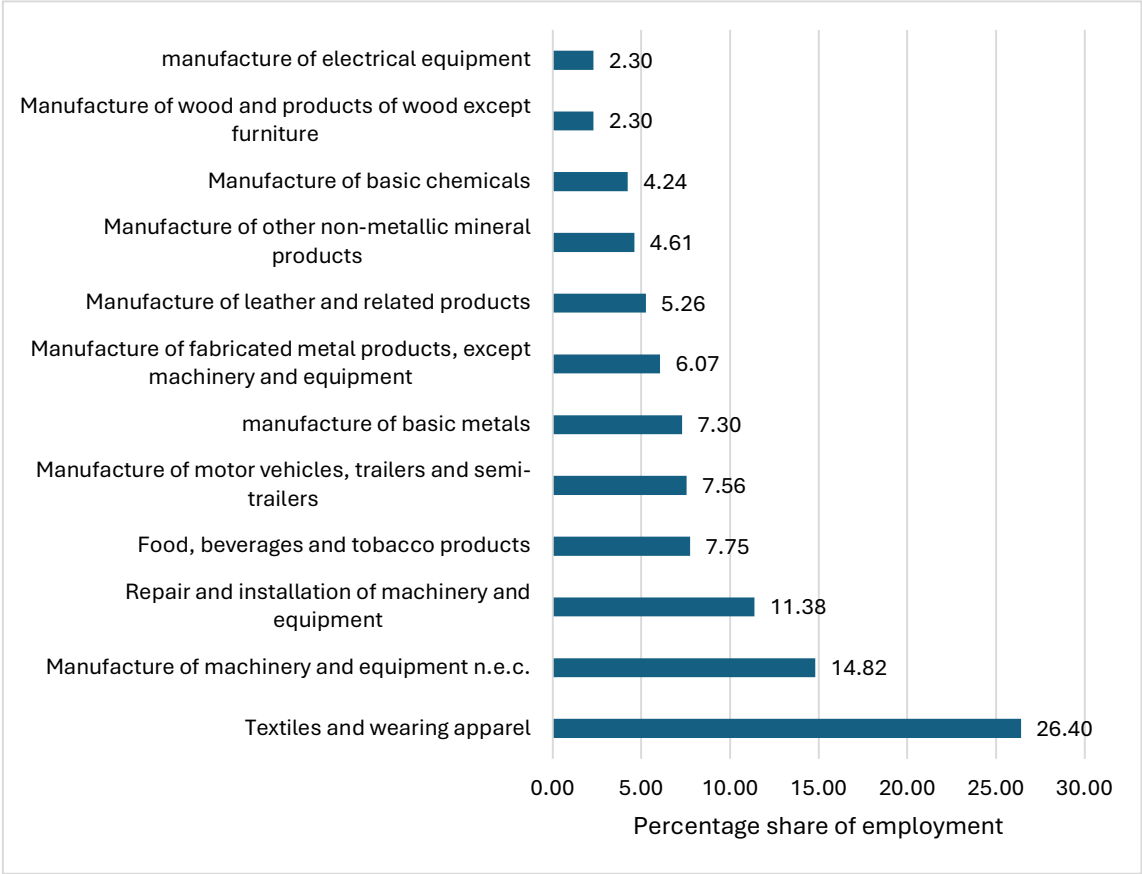
**Figure 12: Percentage share of employment in the industry sector**



Data source: KCHS 2021

A disaggregation of employment in manufacturing shows that the majority of those employed in the sector work in textiles and manufacture of machinery and equipment industries as shown in Figure 13.

**Figure 13 : Percentage share of employment in manufacturing sub-sectors**



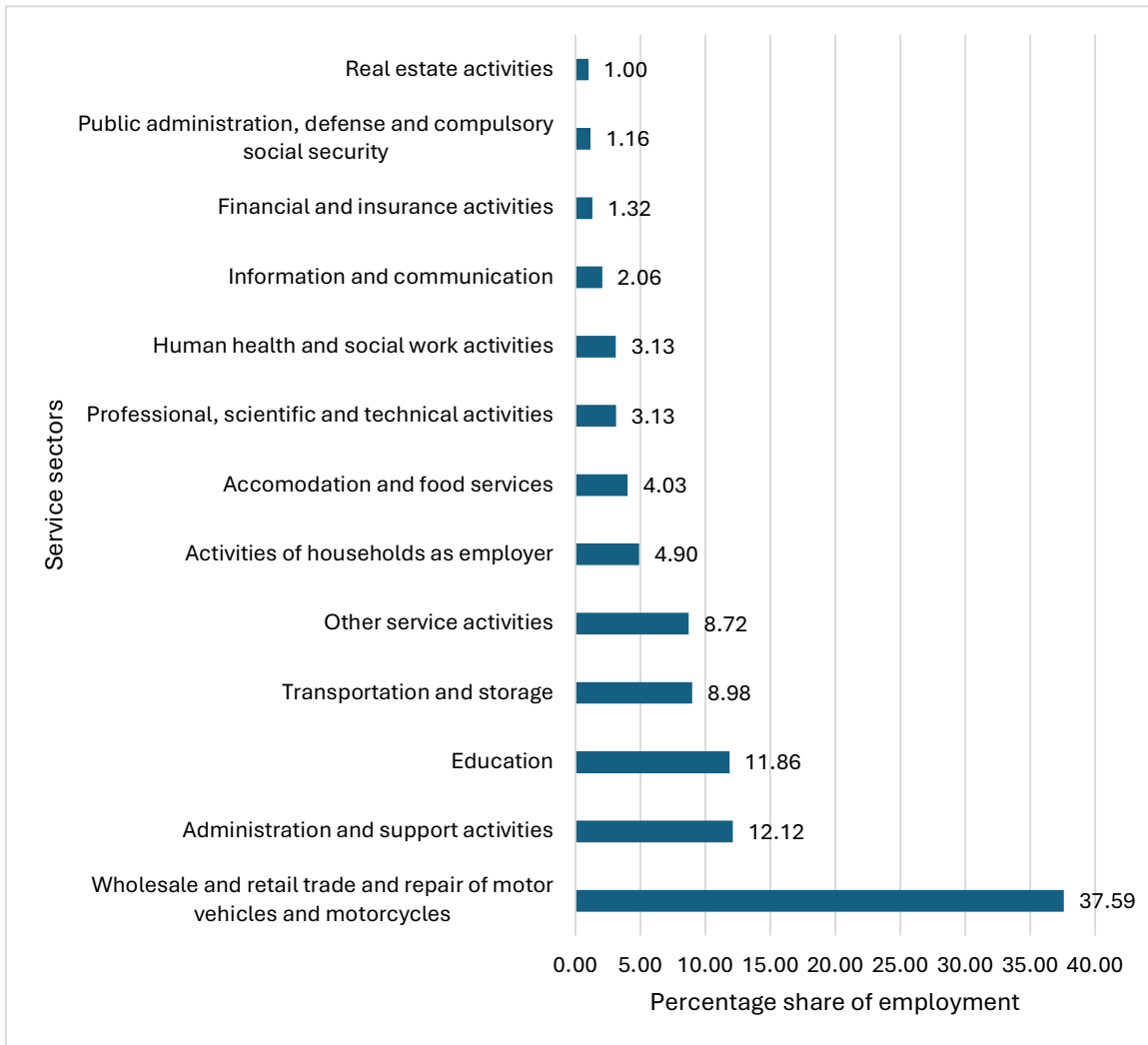
Data source: KCHS 2021

**Services Sector**

The majority of those working in the services sector are in wholesale and retail trade, and repair of motor vehicles and motorcycles as shown in Figure 14.



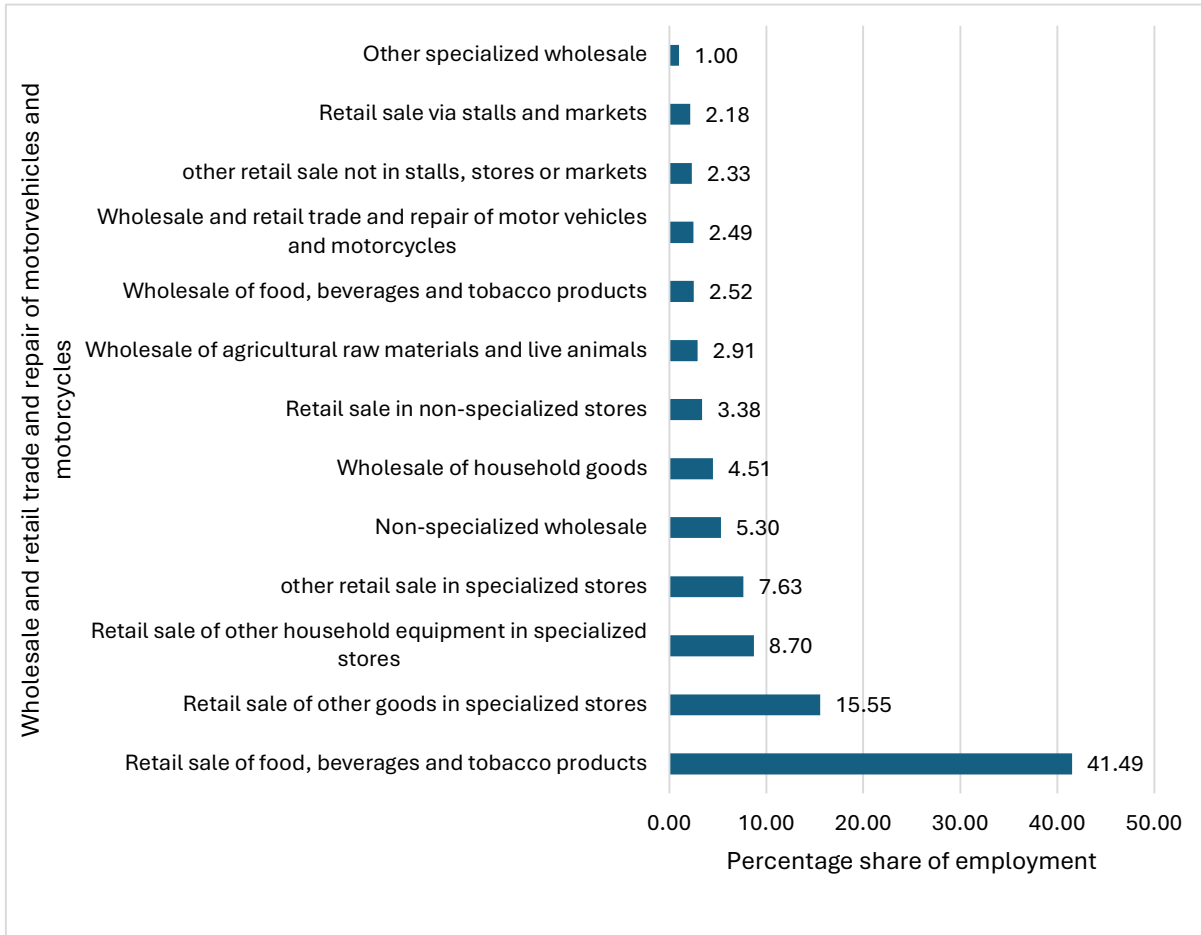
**Figure 14: Percentage share of employment in the services sector**



*Data source: KCHS 2021*

In the wholesale and retail trade and repair of motor vehicles and motorcycles sub-sectors, the majority of the people work in the retail sale of food, beverages, and tobacco products as shown below in Figure 15.

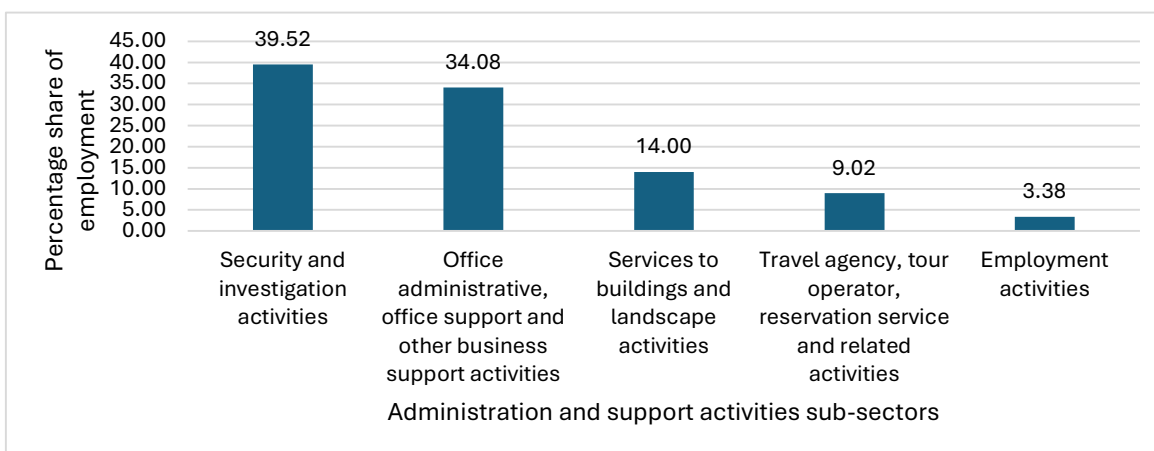
**Figure 15: Percentage of persons employed in the wholesale and retail trade and repair of motor vehicle sub-sectors**



*Data source: KCHS 2021*

In the administration and support activities sub-sector, the majority of those employed are in security and investigation activities as shown in Figure 16.

**Figure 16: Percentage share of employment in the administration and support activities sub-sectors**

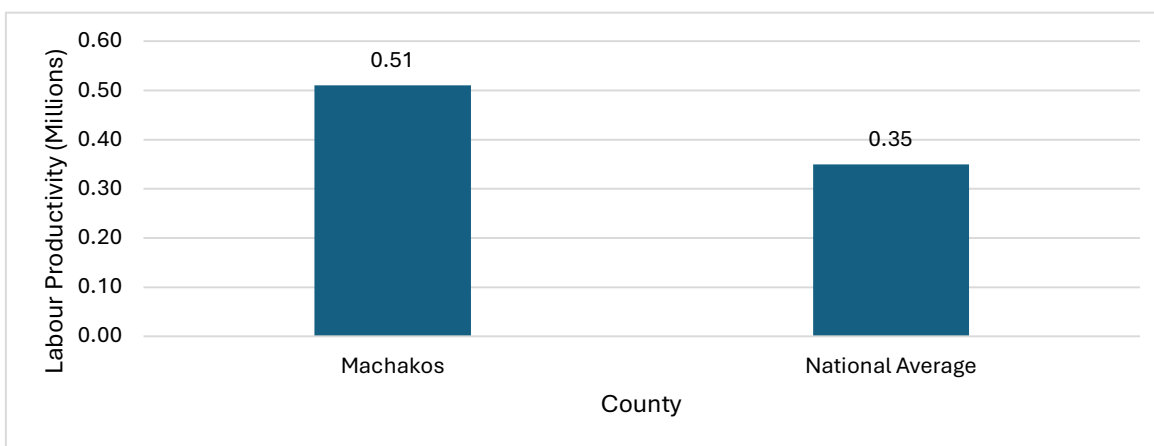


Data source: KCHS 2021

### Labour Productivity

Labour productivity<sup>1</sup> for Machakos County is higher than the national average labour productivity (Figure 17).

**Figure 17: Labour productivity ratios (millions)**

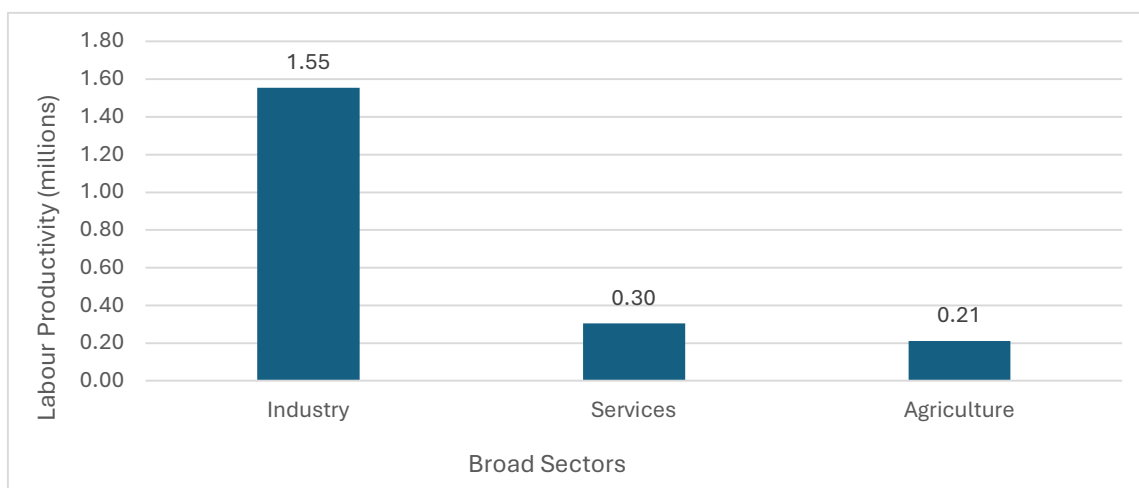


Data source: Author's computation using KNBS GCP 2023 and KCHS 2021 data

<sup>1</sup> The measure used is the apparent labour productivity measured as gross value added per person employed.

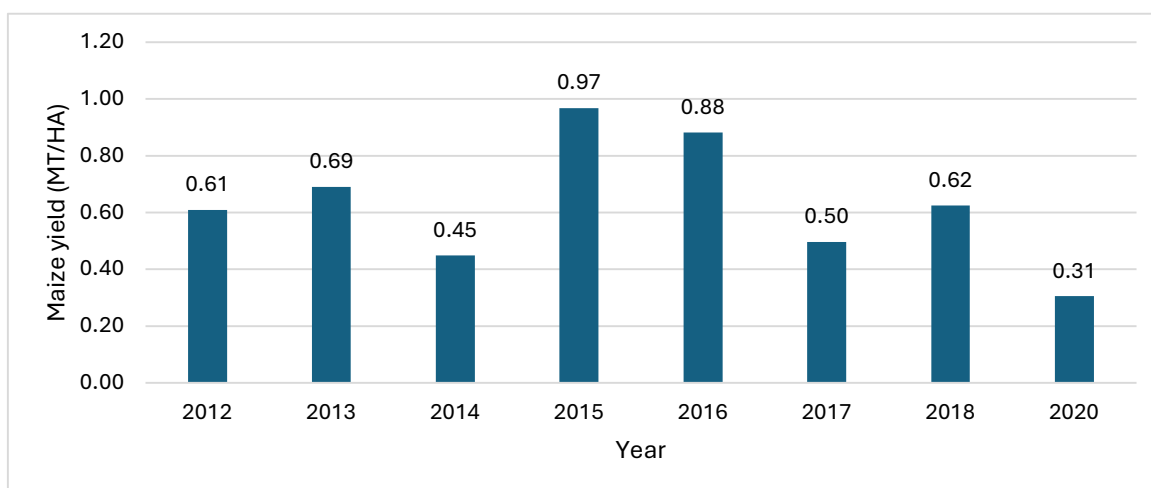
The industry sector had the highest productivity, followed by the services sector, while the agriculture sector had the least labour productivity (Figure 18).

**Figure 18: Labour productivity by sectors**



*Data source: Author's computation using KNBS GCP 2023 and KCHS 2021 data*

### **Agriculture Sector**

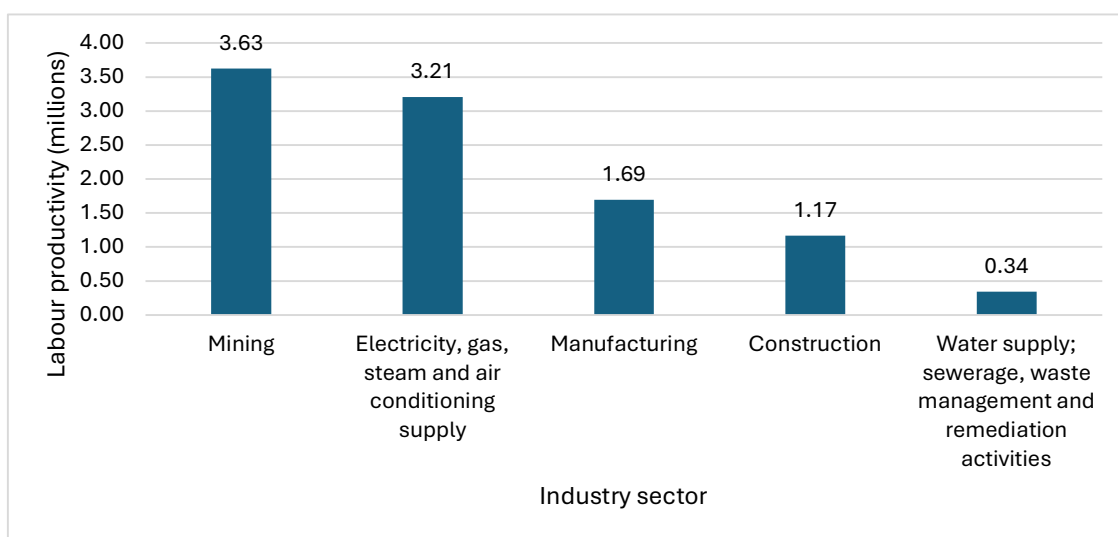


*Data source: NIPFN*

### Industry Sector

Mining and electricity, gas, steam, and air conditioning supply sub-sectors had the highest labour productivity in the industry sector as shown in Figure 19.

**Figure 19: Labour productivity by industry sub-sectors**

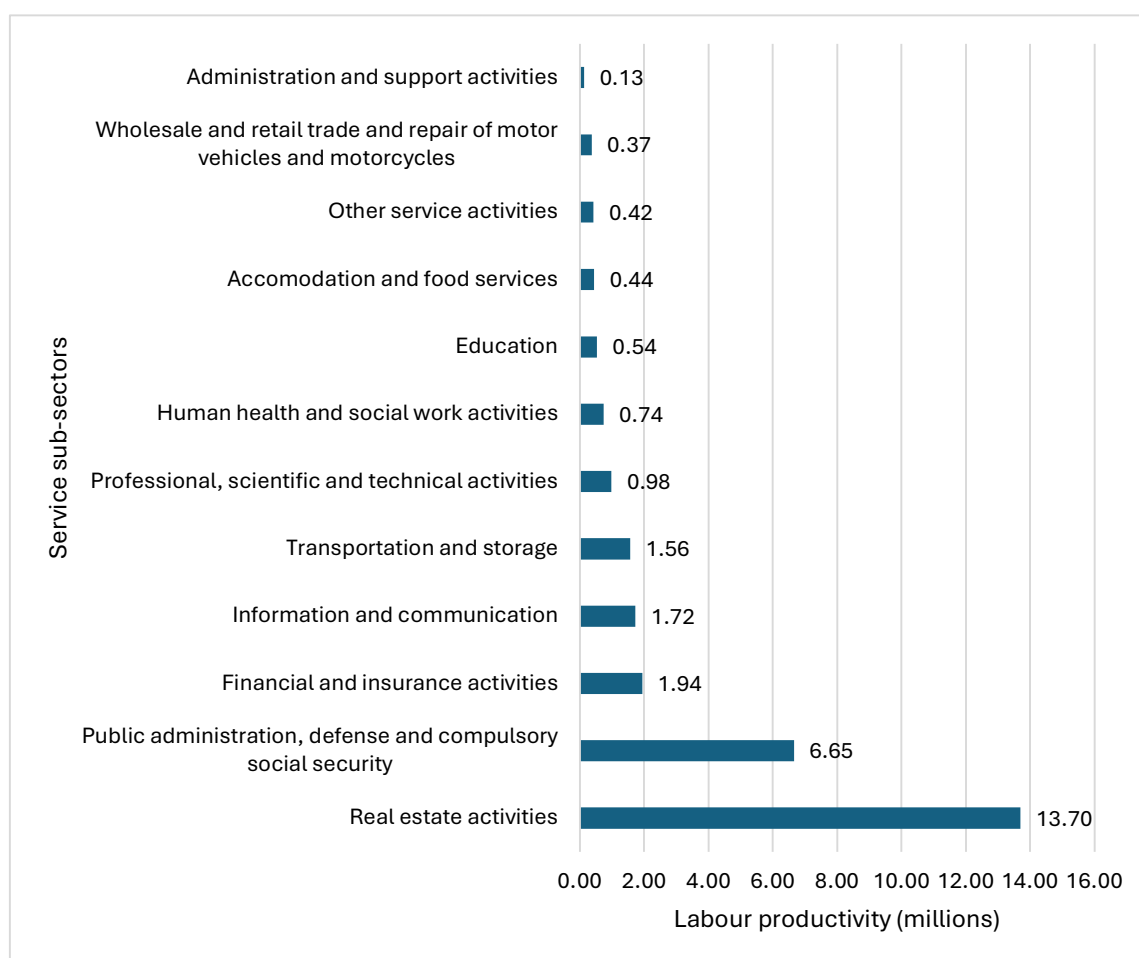


*Data source: Author's computation using KNBS GCP 2023 and KCHS 2021 data*

### Services Sector

The real estate sub-sector had relatively higher labour productivity when compared with other sectors within the services sector as shown in Figure 20.

**Figure 20: Labour productivity in services sectors**



*Data source: Author's computation using KNBS GCP 2023 and KCHS 2021 data*

### Key Messages

- i. The services sector dominates the gross value added while agriculture has the least with low yields in crop farming. Livestock production shows potential in the poultry value chain, which is diversified, and apiculture. Dairy farming is also emerging and has potential. Manufacturing dominates the industry sector GVA while the wholesale and retail trade sector dominates the services sector.
- ii. The indicators of the quality of labour are within national averages. However, interventions are required to reduce stunting, teenage pregnancies, and child poverty.

- iii. The majority of the essential infrastructure that supports the growth of county GVA is higher than the national average. Interventions are needed to increase electricity and internet connectivity and access to improved water.
- iv. Despite the low share of county GVA, the agriculture sector is the highest employer in the county, with the majority practicing mixed farming. Those working in industry sectors are in manufacturing, employment concentrated in textiles and manufacture of machinery and equipment industries. The majority of those working in the service sector are in wholesale and retail trade, with employment concentrated in the retail of food, beverages, and tobacco products.
- v. Labour productivity for the county is higher than the national average. The industry sector had the highest productivity, followed by the services sector, while agriculture had the least labour productivity. Mining had the highest labour productivity in the industry while the real estate sub-sector had higher labour productivity in the services sector.

### **Policy Recommendations**

- i. Build climate resilience in agriculture. This is by encouraging growing of drought-resistant and fast-maturing crops, facilitating the uptake of crop insurance, and optimizing the utilization of information from the early warning systems to inform crop production to improve agricultural productivity. Also, promote poultry value chain and apiculture that are more climate resilient. Integration of small-scale farmers into the dairy value chain should also be prioritized to increase agriculture output.
- ii. Improve the quality of labour by implementing nutrition-sensitive social protection programmes to address stunting and child poverty. Of priority should also be reducing teenage pregnancies through creating awareness and supporting teenage mothers to continue with education.
- iii. Improve essential infrastructure and capital to support the growth of county output by prioritizing electricity and internet connectivity and access to improved water.
- iv. Exploit the mining sector to enhance the contribution of industry to the county's gross value added.

## Acknowledgment

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