Assessing Labour Productivity for Taita Taveta County

By Cecilia Naeku and Esther Irungu

Overview of the County

Taita Taveta County is a member of the Jumuiya ya Kaunti za Pwani (JKP) economic bloc. The county is an arid county, experiencing 85 to100 per cent aridity. Taita Taveta County covers an area 17,083.9 km^2. Taita Taveta County has four Sub-Counties namely: Mwatate, Taita, Taveta, and Voi.

Key Highlights

The productivity of Taita Taveta County is characterized by the following:

(i)   The services sector is the mainstay of the county dominated by wholesale and retail trade, but tourism is yet to be exploited. The industry sector is dominated by construction and the share of manufacturing is declining.

(ii) The quality of labour can be enhanced through interventions that reduce stunting, teenage pregnancy, and food poverty which affect future labour productivity.

(iii) The essential infrastructure requires significant investment to enhance access to electricity, increase rural roads, and improve internet connectivity.

(iv) The agriculture sector has the highest share of employment which is engaged in crop production. Fish farming has the potential for job creation. In manufacturing, the manufacture of wood and products of wood and manufacture of chemical and chemical dominates employment. Wholesale and retail trade dominate the services sector with retail sales of food, beverage, and tobacco.

(v)   Labour productivity is highest in the service sector which is dominated by non-market services and the informal sector, while agriculture has the lowest. In industry sector, water supply, sewerage, waste management, and remediation activities have the highest productivity. In agriculture sector, there is potential for crop production though highly vulnerable to drought episodes.

To enhance productivity:

  (i)   Secure and improve the quality of labour with nutrition interventions to reduce stunting, create awareness to reduce teenage pregnancy and support teenage mothers to go back to school, and improve food security.

  (ii)   Encourage investments in manufacturing to transform the agriculture sector through agro-processing and promote mining. Support the County Aggregation Industry Park and create an enabling environment for MSMEs.

  (iii)   Invest in promoting tourism to expand the services sector by marketing the tourism sites and attracting investments in hotels to enhance MICE tourism.

  (iv)   Put in place an agricultural transformation plan that includes increased uptake of crop insurance and irrigation, development of livestock value chain to integrate the small farmers to the dairy and leather industry, exploit the fish farming, and build skills for farmers to uptake technologies that improve productivity.

  (v)   Support small-scale miners to combine indigenous knowledge with modern technology to grow the mining industry in the county for employment creation and economic growth.

Taita Taveta County Economic Performance

Taita Taveta County contributes on average to 1.1 per cent of the National Gross Value added with an average GVA of Ksh 47,5543 million. The GVA per capita for Taita Taveta County is Ksh 192,609 with an average population growth of 1.7 per cent and overall poverty levels of 33.9 per cent.

Taita Taveta County has shown a steady growth in GVA with an average growth rate of 4.44 per cent in 2013-2022 which is higher than the national average growth of 4.37 per cent as shown in Figure 1. The highest growth rate was in 2021.

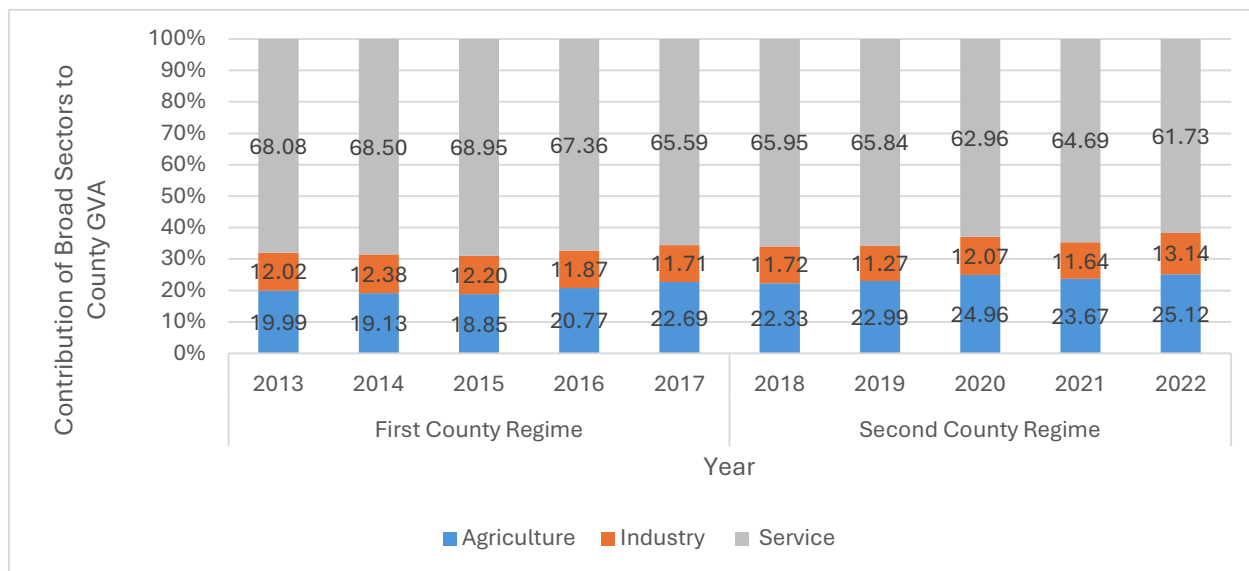## Figure 1: Taita Taveta County GVA growth rate
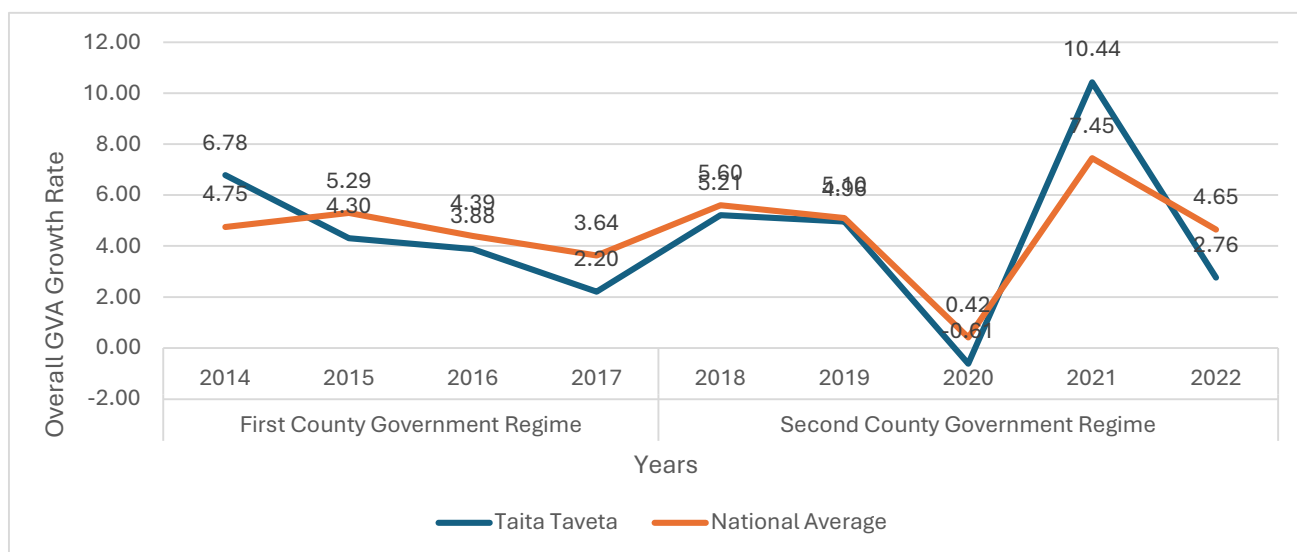
Data Source: KNBS 2023-Gross County Product

Sectoral Analysis of GVA

The service sector is dominant in Taita Taveta County with an average contribution to GVA of 65.97 per cent. The agriculture sector is second, contributing an average of 22.05 per cent to the GVA while industry contributes about 12.00 per cent as shown in Figure 2.

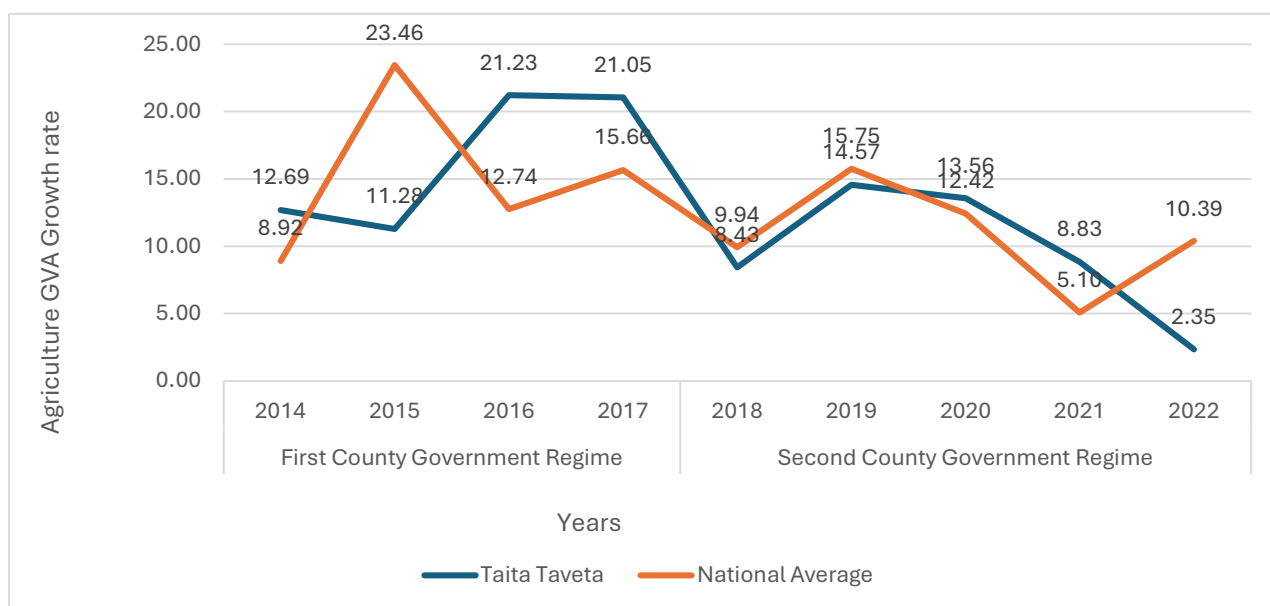**Figure 2: Contribution of broad sectors to Taita Taveta County GVA**

Data Source: KNBS 2023-Gross County Product

Agriculture Sector

The average growth rate of agriculture GVA in 2013-2022 is 12.67 per cent, which is below the national average of 12.71 per cent as shown in Figure 3.

Figure 3: Taita Taveta County agriculture GVA growth rate

Data Source: KNBS 2023-Gross County Product

Aridity, frequent droughts, and human-wildlife conflicts constrain maize production in Taita Taveta as reflected in the low area harvested for maize. The county has only about 12 per cent of arable land, as most of the land in the county is under Tsavo National Reserves and the rest suitable for livestock production. Both maize production and area under maize production have been low over time with the highest decline being in 2014 due to a drought episode and the highest increase being in 2020 which had good rainfall patterns (Figure 4).

Figure 4: Maize production and area under maize production
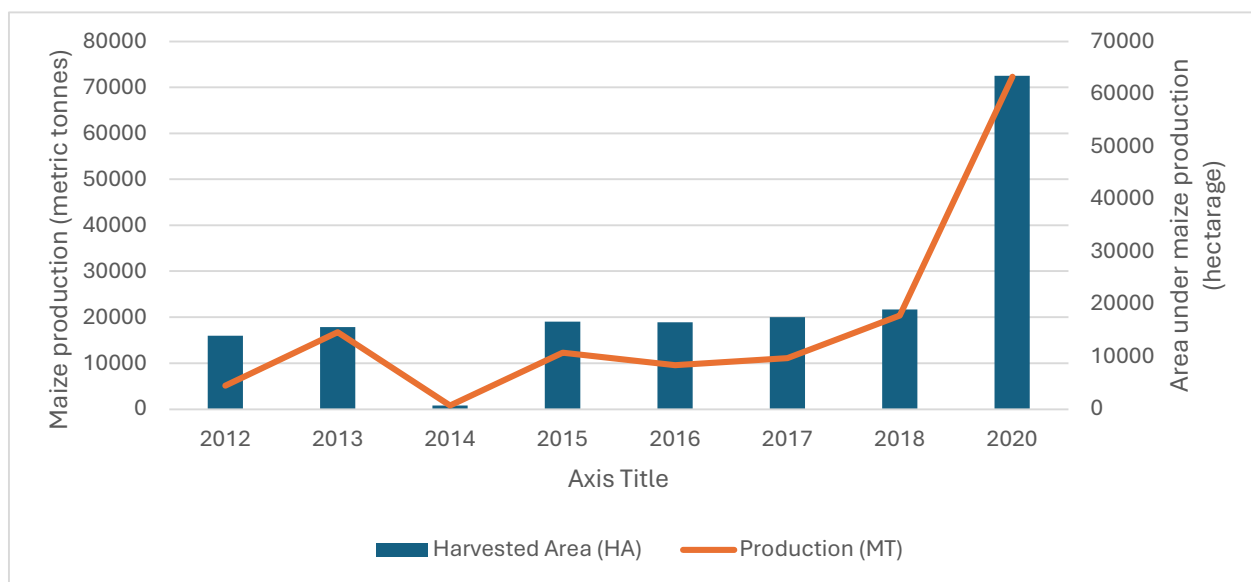
Data source: National Information Platform for Food and Nutrition (NIPFN)

Livestock production is also a key livelihood in Taita Taveta county, practiced around the drier Tsavo ecosystem by agro-pastoralist communities. The most common livestock kept are beef cattle and meat goats (Figure 5). Poultry farming is also common, with indigenous chicken being the dominant poultry type in the county. Dairy farming is also practiced in the highland areas of the county and has been supported by the County Government and Development partners through the provision of subsidized AI services. Milk and eggs have the highest total value among the livestock products (Figure 5). Although Taita Taveta County has significant livestock resources the marketed value of hides and skins is incredibly low as livestock production is yet to be fully integrated into the leather value chain. Additionally, climate change through frequent and severe droughts is also inhibiting the full realization of the county's potential in livestock production.
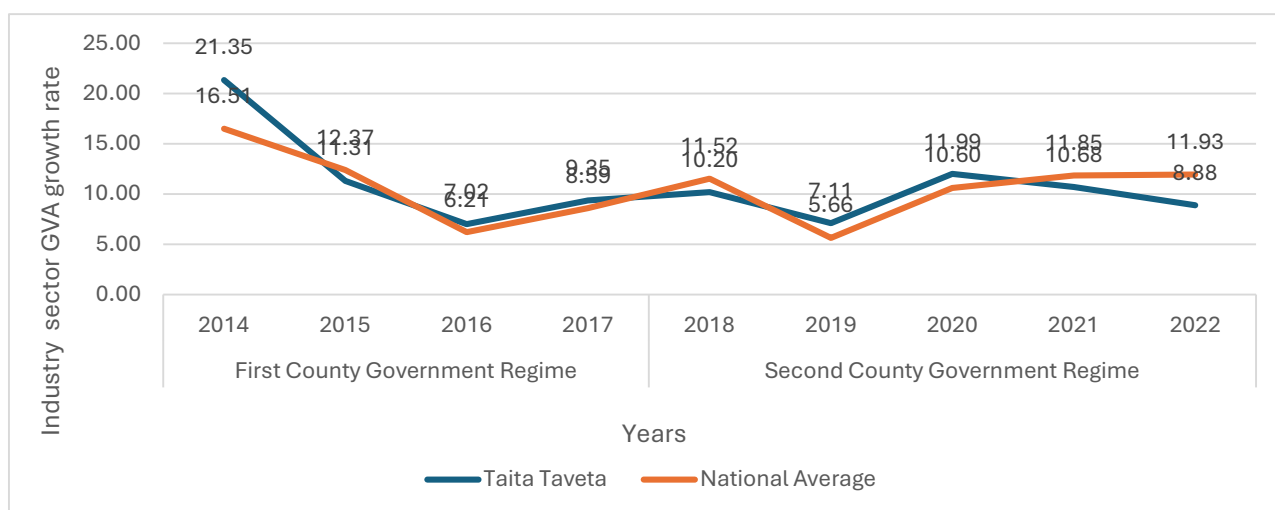
Figure 5: Livestock production statistics
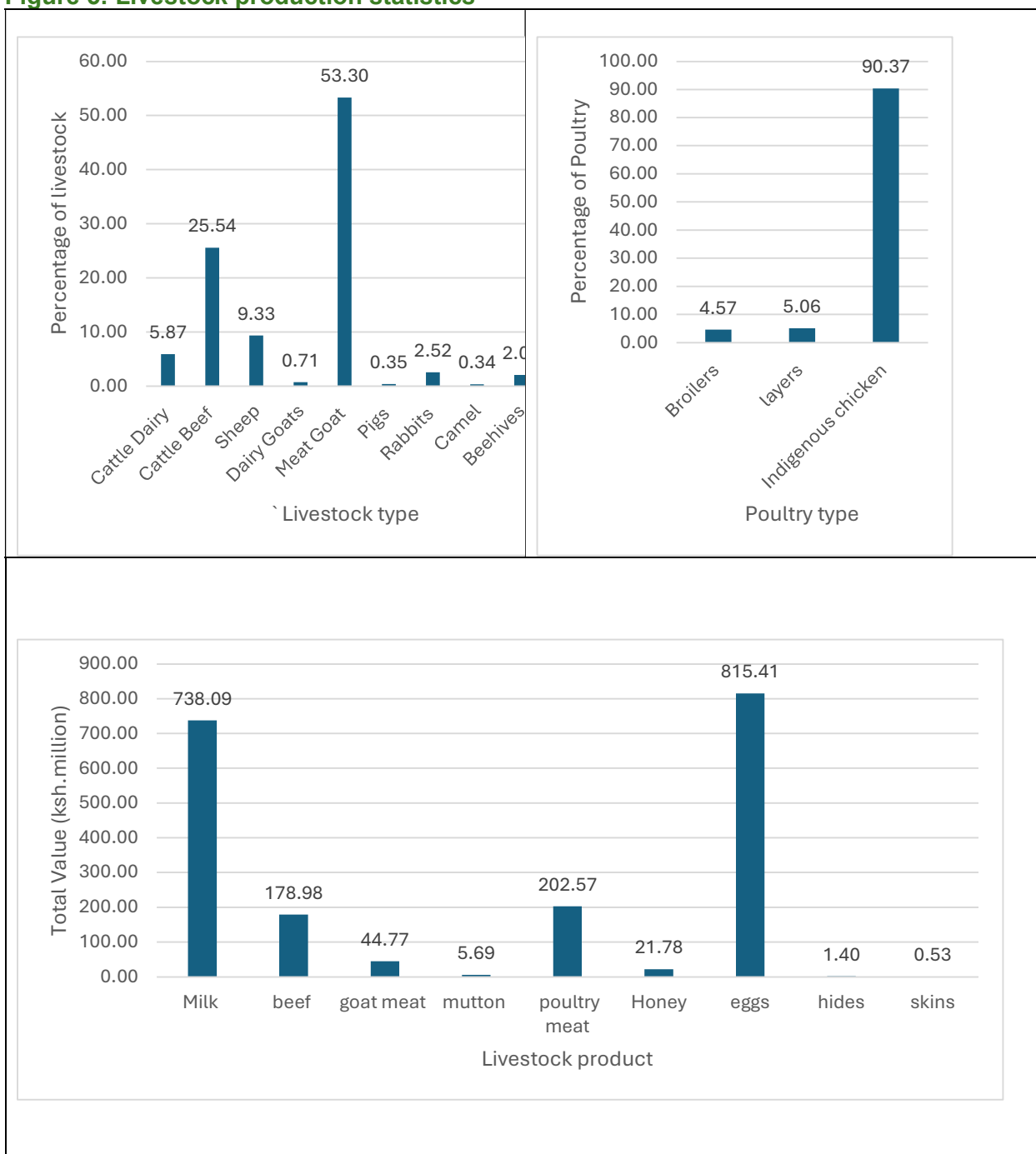
Data source: National Information Platform for Food and Nutrition (NIPFN)

Industry Sector

The average growth rate for industry sector is 10.88 per cent, which is slightly above the national average of 10.58 per cent as shown in Figure 6.

Figure 6: Taita Taveta County industry GVA growth rate

Data Source: KNBS 2023-Gross County Product

Manufacturing and construction sub-sectors dominate the industry sector GVA as shown in Figure 7. Manufacturing dominated in the first county regime, then declined in the second county regime as the output from the construction sector increased and dominated. The decline in manufacturing is concerning as it has vital backward and forward linkages with other sectors such as agriculture, extractives, and trade and hence can potentially spur overall economic growth.

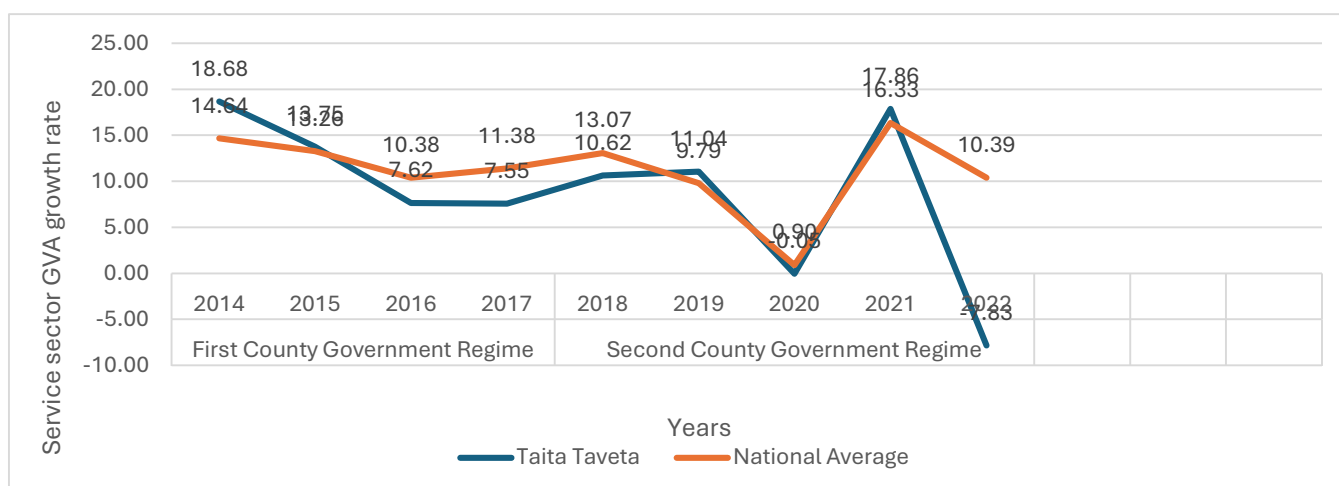**Figure 7: Contribution of industry sub-sector sectors to Industry GVA**
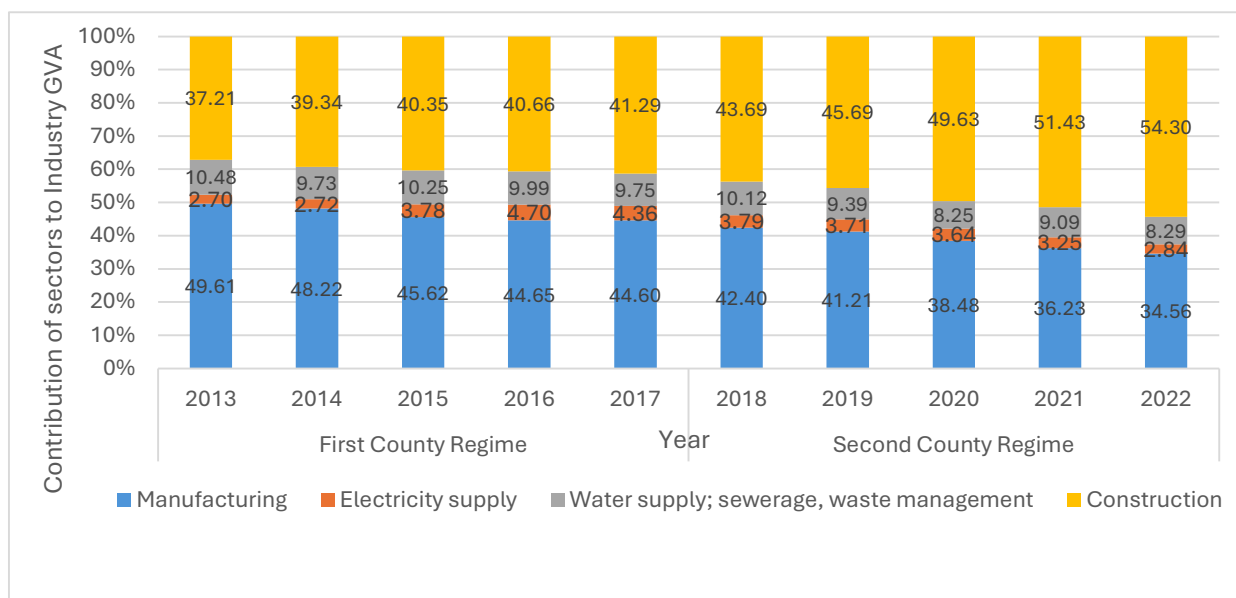
Data Source: KNBS 2023-Gross County Product

Services Sector

The average growth rate for services sector is 8.25 per cent which is below the national average of 11.13 per cent as shown in Figure 8.

Figure 8: Taita Taveta County services sector GVA growth rate

Data Source: KNBS 2023-Gross County Product

The wholesale and retail trade sector dominates the services sector with the highest contribution to services sector GVA at 29.30 per cent. The public administration and defence sub-sector is the second highest contributor to services sector GVA at 18.86 per cent. The transport and storage sub-sector is third at an average of 12.34 per cent as shown in Figure 9. The tourism potential in the county has not been fully exploited as the contribution by accommodation and food services is incredibly low. This is despite having 62% of the county within Tsavo East and Tsavo West National Parks. The county also hosts WWI gazetted battlefield sites which have the potential to attract more tourists.

Figure 9: Contribution of sub-sectors to services sector GVA
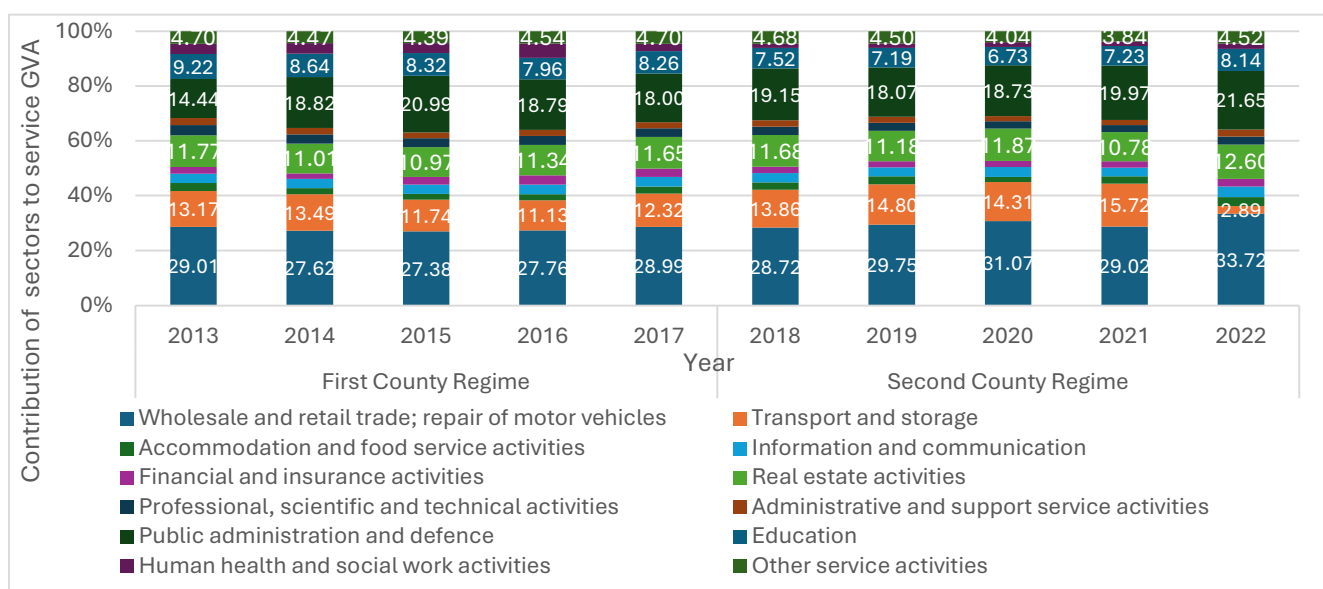
Data Source: KNBS 2023-Gross County Product

Quantity and Quality of Labour Force for Taita Taveta County

Taita Taveta County has a total of 205,050 working-age population, which is about 60.19 per cent of the county population. Most of the working-age population is youthful (18-34 years) at 45.37 per cent as shown in Table 1.

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

Working age population	Male	Female	Total	Percentage of total working age population (%)
15-17	11,276	10,768	22,044	10.75
18 –24	21,362	20,635	41,997	20.48
25-34	26,270	24,770	51,040	24.89
35-64	47,304	42,665	89,969	43.88
Total	106,212	98,838	205,050	

Data Source: KNBS (2019), Kenya Population and Health Census - KPHC 2019

Most of the population in Taita Taveta sub-county are persons in the working age categories. Voi has the highest percentage of working-age persons at 61.70 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	
Mwatate	81,657	5,449 (11.28)	9,699 (20.07)	10,701 (22.15)	22,471 (46.50)	48,320 (59.17)
Taita	55,959	3,704 (11.30)	6,072 (18.52)	6,643 (20.26)	16,368 (49.92)	32,787 (58.59)
Taveta	91,222	6,074 (11.06)	11,604 (21.12)	14,783 (26.91)	22,481 (40.92)	54,942 (60.23)
Voi	111,826	6,817 (9.88)	14,622 (21.19)	18,913 (27.41)	28,649 (41.52)	69,001 (61.70)

Data Source: KNBS (2019), Kenya Population and Health Census - KPHC 2019

Taita Taveta County has high performance in socioeconomic indicators that affect the quality of labour, however, interventions are needed to reduce the percentage of stunted children, teenage pregnancies, and food poverty (Table 3).

Table 3: Human capital indicators

Human capital indicators	County	National average
Literacy rate	88.50	78.41
Pre-primary net enrolment rate (2019)	82.85	67.51
Primary school net enrolment rate (2020)	88.70	77.72
Secondary school net enrolment rate (2020)	68.00	54.18
Average years of schooling (2014)	7.80	7.78
Percentage of children 12-23 months fully vaccinated (%)	88.80	74.97
Percentage of stunted children	19.20	19.75
Percentage of teenage pregnancy	18.40	15.79
Primary to secondary transition rates (2020)	84.00	86.13
Pupil-teacher ratio (primary school)	27.00	28.28
Food poverty head count (%)	37.20	33.63
Child poverty head count (%)	35.40	42.67

Source: KNBS (2022), Kenya Demographic and Health Surbey - KDHS 2022; KNBS (2019), Kenya Population and Health Census - KPHC 2019; Ministry of Education (2020; 2021 Basic Education Statistical Booklet; KNBS 2021-Kenya Poverty Report

Most of the essential infrastructure and capital indicators in Taita Taveta County are higher than the national average (Table 4). Interventions are, however, needed to increase access to the internet and road access.

Table 4: Essential infrastructure and capital indicators

Essential infrastructure indicators	County	National average
Percentage of households with access to electricity (2019 census)	47.60	38.52
Distribution of population using the internet (2019 census)	23.90	18.69
Rural Access Index (2018)	48.26	63.72
Access to improved sanitation (2018)	99.00	59.04
Access to improved water (2018)	79.90	65.33
Financial inclusion level (2021)	82.00	81.01
The proportion of primary schools with Internet	30.00	27.65
Proportion of secondary schools with functional internet	57.40	35.13
Percentage of households by housing material composite-finished materials(adequate) (2019)	62.20	51.71
Percentage of households using bank usage (overall)	46.00	38.18
Percentage of Households using mobile money	81.00	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 at 69.74 per cent. Most of those working is the non-youth working population (35-64 years) at 37.67 per cent while the youth (18-34 years) is at 30.94 per cent as reported in Table 5. There is little disparity in employment by gender as the percentage of the male employed is 47.63 per cent while for female it is at 46.58 per cent. The unemployment rate is at 7.58 per cent with unemployment being slightly higher for the youth (18-34 years) at 4.65 per cent. The percentage of persons 5–17 years old working is 2.67 per cent indicating that the county has low levels of child labour. The inactivity rate is higher for the youth (15-24 years) as this age category is still schooling. Inactivity rate is low for persons of prime age (25-64 years) which indicates high labour utilization.

Table 5: Taita Taveta employment statistics

Employment statistics	Youth	Non youth
Employment to population ratio (%)	30.94	37.67
Unemployment rate	4.65	2.77
Percentage of persons 5–17 years old working	2.67	-
Inactivity rate	16.16	4.33

Data Source: Data Source: KNBS (2019), Kenya Population and Health Census - KPHC 2019

Sectoral Employment

The agriculture sector is the highest employer in Taita Taveta County at 55.24 per cent followed by the services sector at 31.27 per cent. The industry sector is third at 13.49 per cent as shown in Figure 10.

Figure 10: Percentage of persons employed in the broad sectors
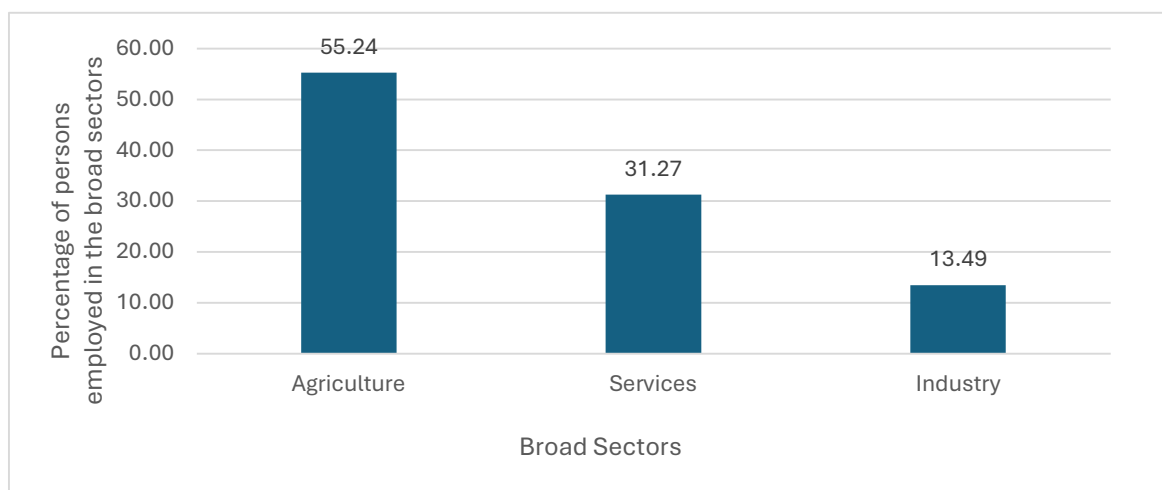
Data Source: KNBS 2021- Kenya Continuous Household Survey

Agriculture Sector Employment

In agriculture, crop production and mixed farming have the highest share of employment as shown in Figure 11. Pastoralism is also practiced in the county, accounting for 6.46 per cent share of the employment.

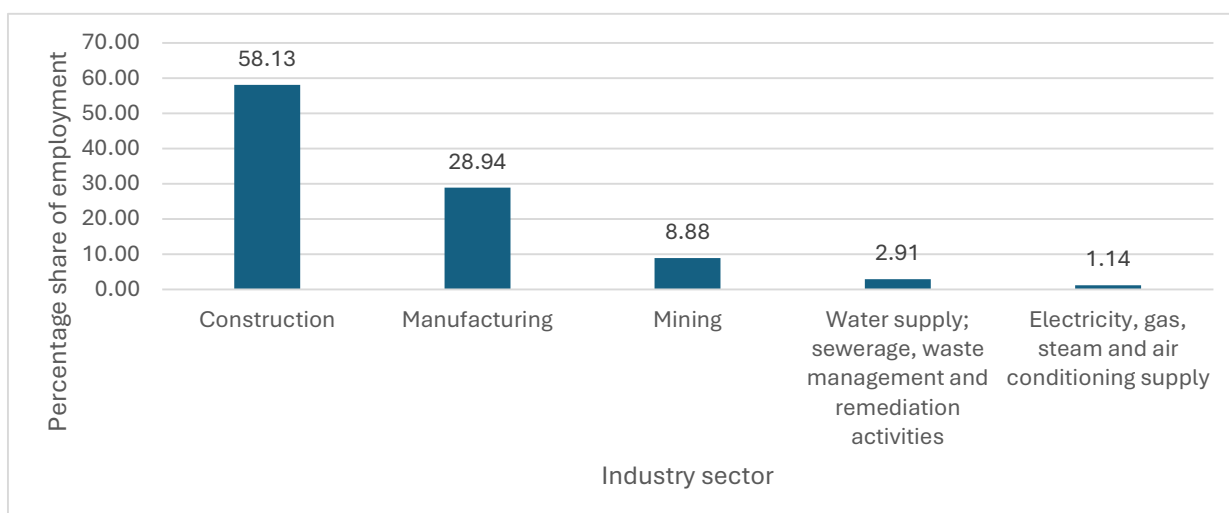**Figure 11: Percentage share of employment in agriculture sub-sectors**
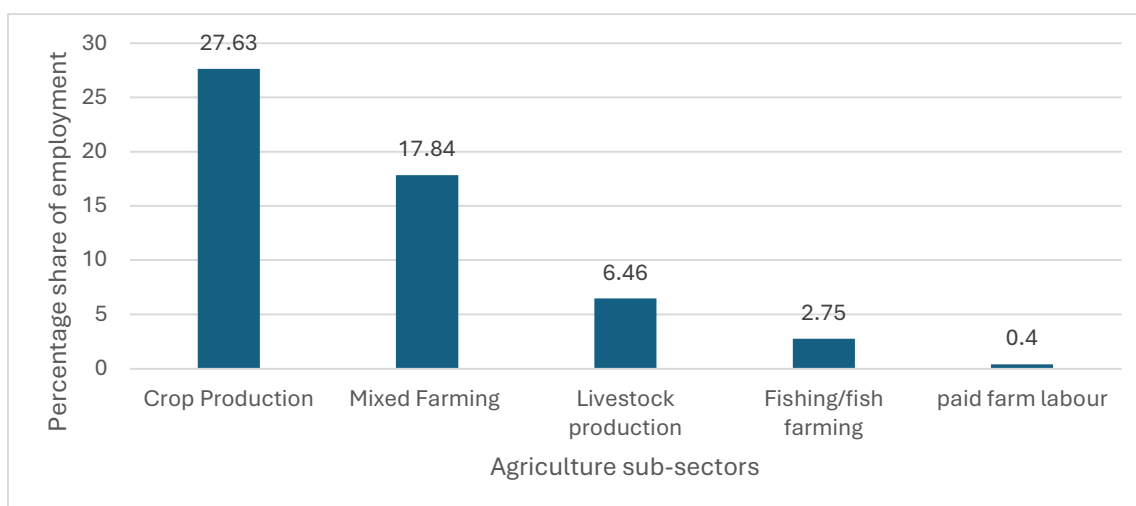
Data Source: KNBS 2021- Kenya Continuous Household Survey

Industry Sector Employment

The majority of those working in the industry sectors are in the construction sub-sector which entails the construction of buildings. Manufacturing has a high share of employment while mining has a lower share which entails the mining of iron ores and other non-ferrous metals and the quarrying of stones (Figure 12). Although the county is rich in gemstones and industrial minerals, employment in the mining sector is extremely low as the full potential of minerals in the county is not fully known and not optimally exploited.

Figure 12: Percentage share of employment in the industry sectors

Data Source: KNBS 2021- Kenya Continuous Household Survey

A disaggregation of employment in manufacturing sub-sector shows that the majority of those employed work in low-technology manufacturing sub-sectors such as wood and chemicals industries as shown in Figure 13.

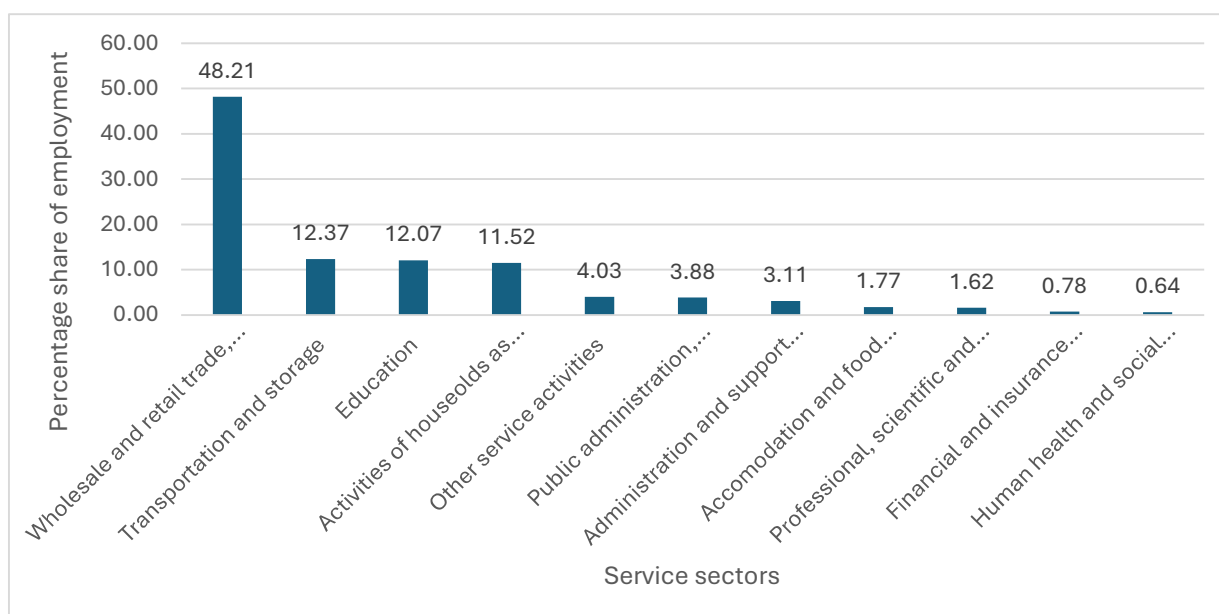**Figure 13 : Percentage share of employment in manufacturing sub-sectors**
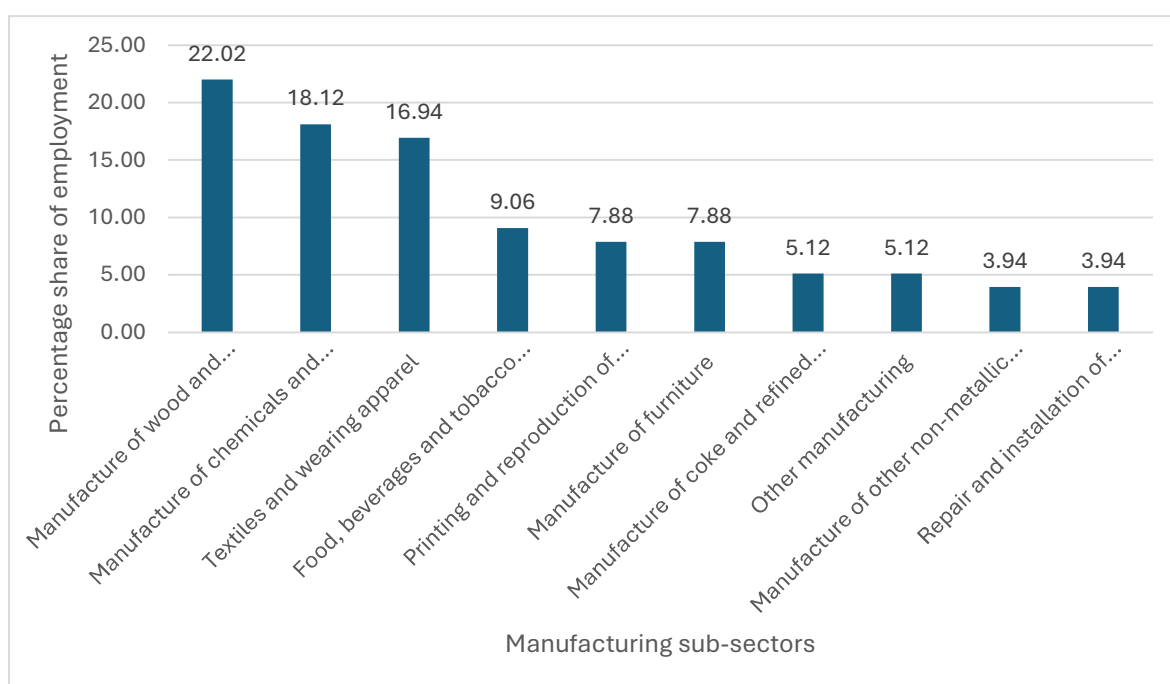
Data Source: KNBS 2021- Kenya Continuous Household Survey

Services Sector Employment

The majority of those working in the services sector are in wholesale and retail trade as shown in Figure 14.
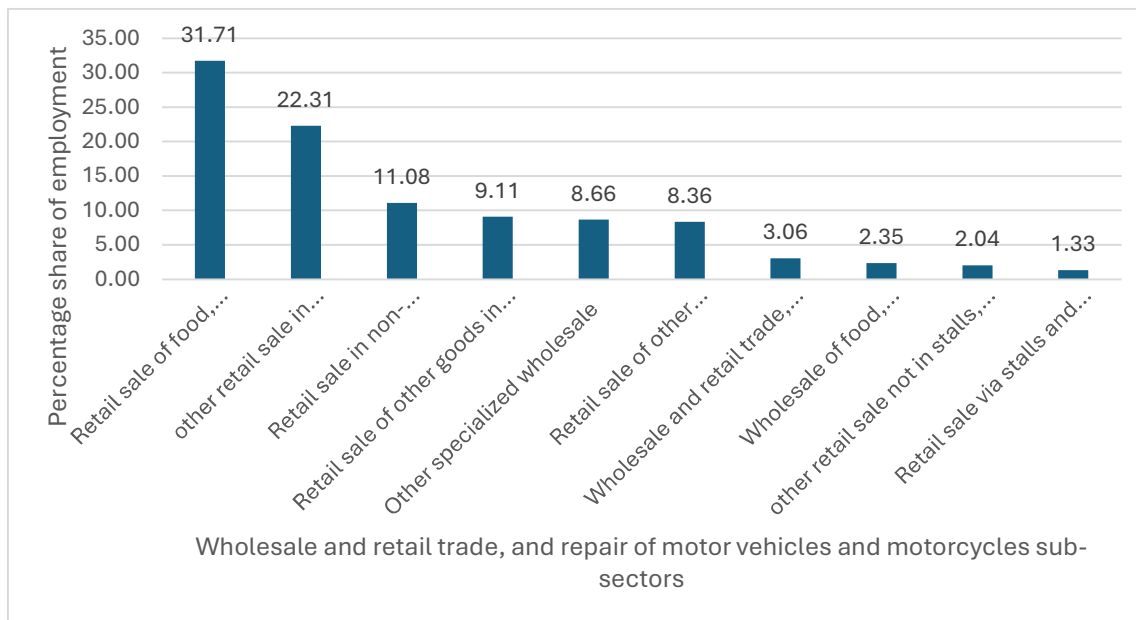
Figure 14 : Percentage share of employment in the services sector

Data Source: KNBS 2021- Kenya Continuous Household Survey

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

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

Data Source: KNBS 2021- Kenya Continuous Household Survey

In the transportation and storage sub-sector, the majority of those employed are in other passenger land transport as shown in Figure 16.

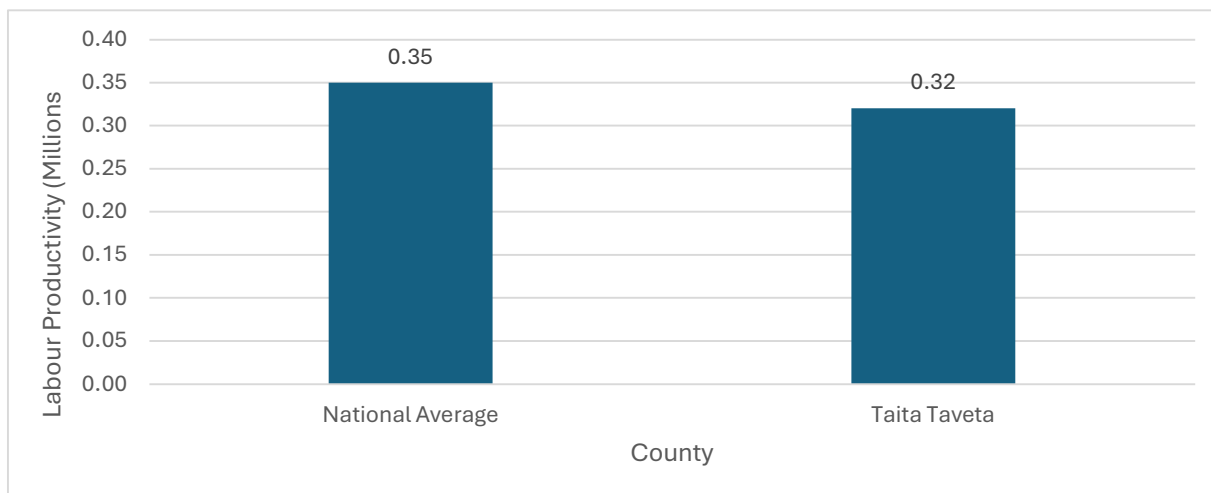**Figure 16: Percentage share of employment in the transport and storage sub-sectors**
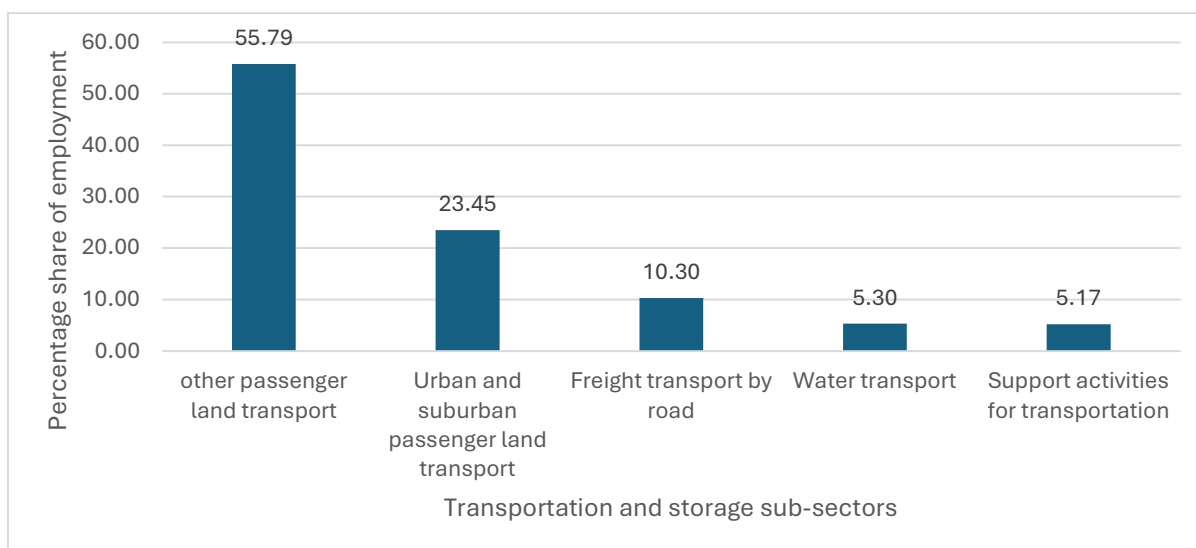
Data Source: KNBS 2021- Kenya Continuous Household Survey

Labour Productivity

Labour productivity[1] for Taita Taveta County is lower than the national average as shown in Figure 17.
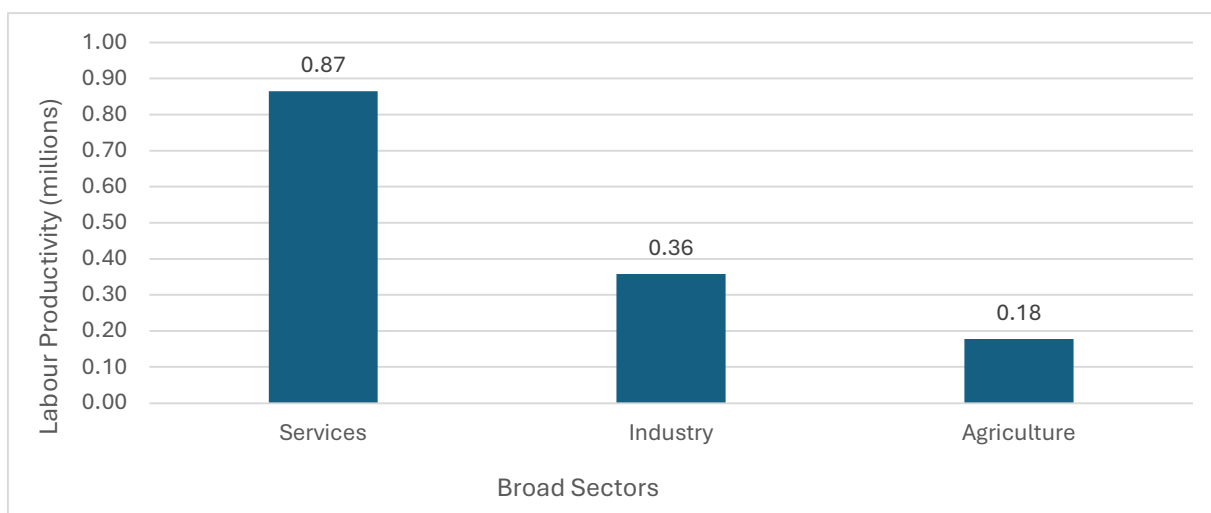
Figure 17: Labour productivity ratios (millions)

Data Source: Author's computation using KNBS 2023-Gross County Product and KNBS 2021- Kenya Continuous Household Survey

The services sector had the highest productivity, followed by the industry sector and the agriculture sector has the least as shown in Figure 18.
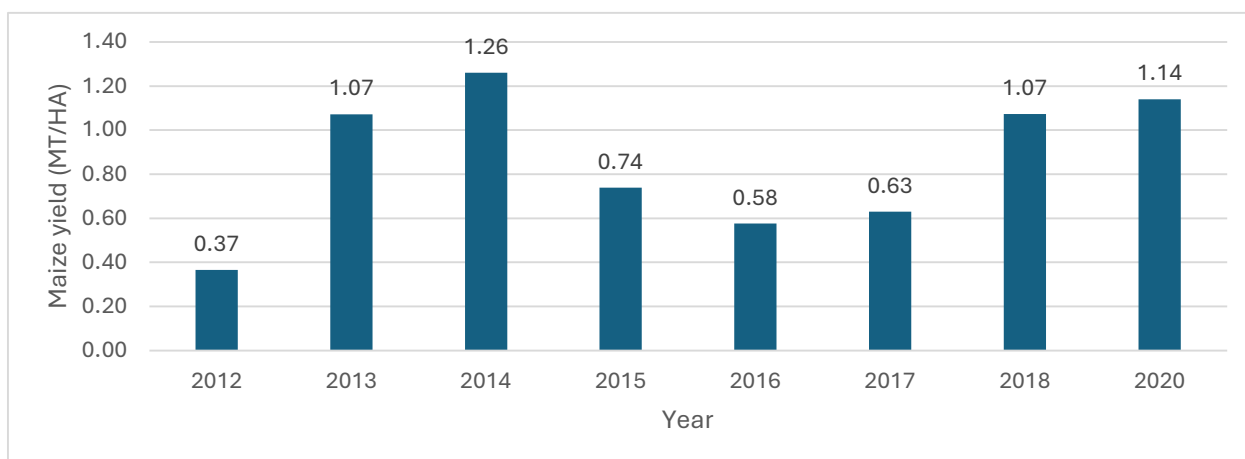
Figure 18: Labour productivity by sectors

Data Source: Author's computation using KNBS 2023-Gross County Product and KNBS 2021- Kenya Continuous Household Survey

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[1]The measure used is the apparent labour productivity measured as gross value added per person employed.

Agriculture Productivity

In agriculture, maize yield is extremely low averaging of 0.86 MT/HA. This is attributed to dependence on rainfed agriculture in the face of high aridity and episodic drought shocks. The lowest yields were in 2012, 2016, and 2017 all attributable to drought episodes as shown in Figure 19.

### Figure 19: Maize yield (MT/HA)

Data source: National Information Platform for Food and Nutrition (NIPFN)

Industry Sector Labour Productivity

The water supply, sewerage, waste management and remediation activities, and electricity, gas, steam, and air conditioning supply sub-sectors had the highest labour productivity in the industry broad sector as shown in Figure 20.

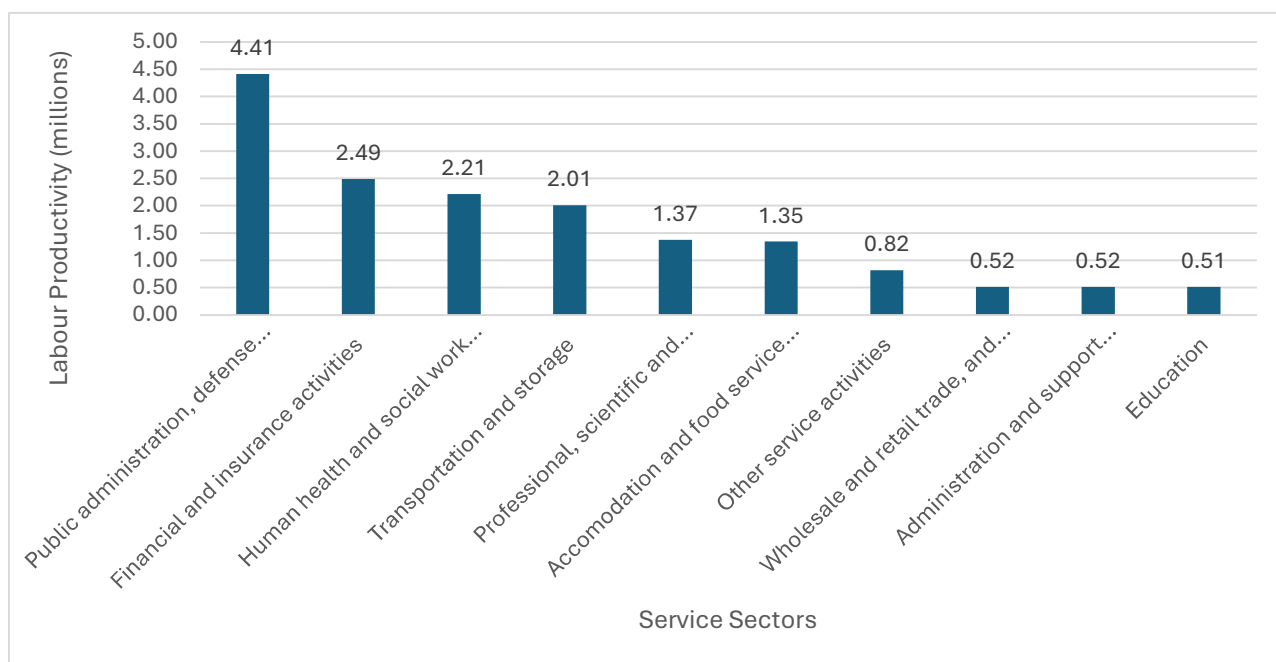### Figure 20: Labour productivity by industry sub-sectors
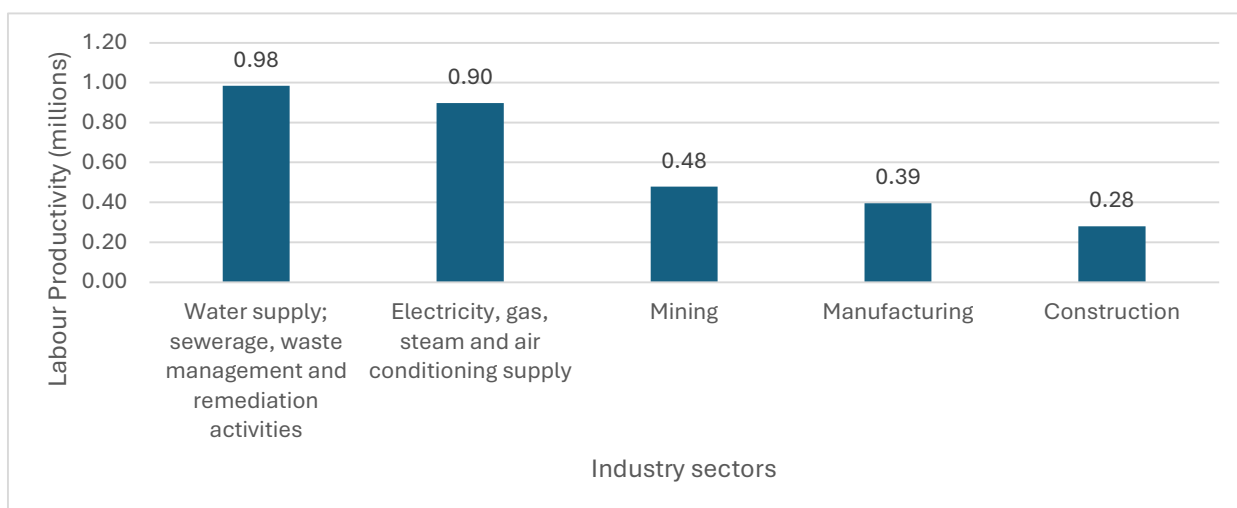
Data Source: Author's computation using KNBS 2023-Gross County Product and KNBS 2021- Kenya Continuous Household Survey

Services Sector Labour Productivity

Public administration, defence, and compulsory social security sub-sector had higher labour productivity when compared with other sub-sectors within the services sector. The wholesale and retail trade sub-sector which had the highest employment in the services sector had the second lowest labour productivity as shown in Figure 21.

Figure 21: Labour productivity in services sub-sectors

Data Source: Author's computation using KNBS 2023-Gross County Product and KNBS 2021- Kenya Continuous Household Survey

Key Messages

(i)   The services sector is the mainstay of the county. The industry sector is less than 15 per cent while agriculture has increased its share over time. Livestock production is a key activity for cattle and goats for meat. An increased acreage for maize production in 2020 is an indication that there is potential for crop production with appropriate measures taken like irrigation. Industry sector is dominated by construction and the share of manufacturing is declining. Wholesale and retail trade is gaining an increasing share in the services sector. That said, about 62 per cent of the land in Taita Taveta is within the twin Tsavo parks and its ecosystem, hence the county has enormous tourism potential which has not been fully utilized as the contribution of tourism to the county is still low.

(ii) Most of the indicators for quality of labour are within the national average. That said, there is a need for interventions to reduce the percentage of stunted children, teenage pregnancy, and food poverty. These aspects affect future labour productivity.

(iii) Several of the essential infrastructure indicators are within the national average. Significant investment is required to enhance access to electricity, increase rural roads, and improve internet connectivity.

(iv) The agriculture sector has the highest share of employment which is engaged in crop production. Fish farming has the potential for job creation. For industry sector, construction is the largest while in manufacturing, manufacture of wood and products of wood and manufacture of chemical dominates which demonstrates a higher technology manufacturing. Wholesale and retail trade dominate the services sector with retail sales of food, beverage, and tobacco.

(v) Labour productivity is lower than the national average. The services sector which is dominated by non-market services and the informal sector has the highest productivity while agriculture has the lowest. In industry sector, water supply, sewerage, waste management, and remediation activities have the highest productivity. In agriculture sector, there is potential for crop production though highly vulnerable to drought episodes.

Policy Recommendations

(i) Secure and improve quality of labour by implementing nutrition interventions that reduce the percentage of stunted children, create awareness to reduce teenage pregnancy while supporting the teenage mother to go back to school, and support agricultural production to improve food security and reduce incidences of food poverty.

(ii) Encourage investments in manufacturing to support transforming the agriculture sector with engaged agro processing as well as diversifying activities in the services sector and mining. This includes supporting the County Aggregation Industry Park and creating an enabling environment for MSMEs.

(iii) Invest in promoting tourism to expand the services sector. This includes marketing the tourism sites in the county and attracting investments in hotels to enhance MICE.

(iv) Put in place an agricultural transformation plan to increase agriculture productivity. This includes increased uptake of crop insurance and irrigation to mitigate the effects of climate change and unlock crop farming; developing the livestock value chain to integrate the small farmers into the dairy, and leather industry; exploiting fish farming; and building skills for farmers to uptake technologies that improve productivity.

(v) Establish the full mineral potential of the county and support the small-scale miners to combine the indigenous knowledge they have with modern technology to grow the mining industry in the county for employment creation and economic growth.

Acknowledgement

The authors acknowledge the special contributions and guidance provided by Dr Rose Ngugi (Executive Director, KIPPRA) throughout the entire process of preparing the county brief. Appreciation also goes to Fridah Njiru for the assistance in compiling data for the brief.