Assessing Labour Productivity for Trans Nzoia County

By Cecilia Naeku and Esther Irungu

Overview of the County

Trans Nzoia County is a member of the North Rift Economic Bloc (NOREB). The county is a non-ASAL county with less than 10 per cent aridity. The county land size stands at 2,470 km². The county has five Sub-Counties namely: Trans Nzoia West, Trans Nzoia East, Kwanza, Endebess, and Kiminini.

Key Highlights

The productivity of Trans Nzoia is characterised by the following.

(i)   The services sector has the highest share of gross value added where transportation and storage sub-sector dominate. The agriculture sector is second despite the high potential in crop production and dairy farming. Maize production is constant despite increases in the area under maize. Manufacturing share is declining as the construction sector expands to dominate the industry GVA.

(ii) The quality of labour requires significant efforts to enhance secondary school enrolment, reduce the high number of teenage pregnancies, improve on immunization of children, and address stunting.

(iii) The essential infrastructure requires efforts to enhance access to electricity, improve sanitation, and housing, and increase internet connectivity.

(iv) The agriculture sector has the highest employment with a significant engagement in crop production. There is potential for livestock production and maize production. In manufacturing, food, beverages, and tobacco products as well as textile and wear apparel have the largest share.

(v)   Labour productivity is highest in the services sector. In agriculture sector, maize yield and livestock production have unexploited potential. In services sector, real estate dominates, while in industry sector manufacturing and construction perform poorly.

To enhance productivity:

(i) Enhance crop production including maize production by supporting the farmers with extension services, input subsidies, and prompt responses to pests and diseases. Further, support livestock production by enhancing integration into the dairy and leather value chain. This can be achieved through milk co-operative societies and milk processing, improved breeds, and enhanced fodder and feed production.

(ii) Encourage investments in manufacturing to support the transformation of the agriculture sector through agro-processing and textile industry. This includes supporting the County Aggregation Industry Park and creating an enabling environment for MSMEs.

(iii) Secure and improve the quality of labour by encouraging a 100 per cent transition to secondary school to upgrade skills development. Implement nutritional programmes to reduce stunting and child poverty. Encourage child immunization to secure future labour productivity.

(iv) Create an enabling environment to attract investments and grow the private sector by investing in enhanced access to electricity, improved sanitation, and housing, and increased internet connectivity.

Trans Nzoia County Economic Performance

Trans Nzoia County contributes on average to 1.6 per cent of the National Gross Value Added with an average GVA of Ksh 76,1311 million. The GVA per capita for Trans Nzoia County is Ksh 116,128 with an average population growth of 2.0 per cent and overall poverty levels at 36.3 per cent.

Trans Nzoia County has shown a steady growth in GVA with an average growth rate of 3.92 per cent in 2013-2022, which is lower than the national average growth of 4.37 per cent as shown in Figure 1. The highest growth rate was in 2018 at 15.52 per cent while there was a contraction in 2022 of 1.80 per cent.

### Figure 1: Trans Nzoia County GVA growth rate
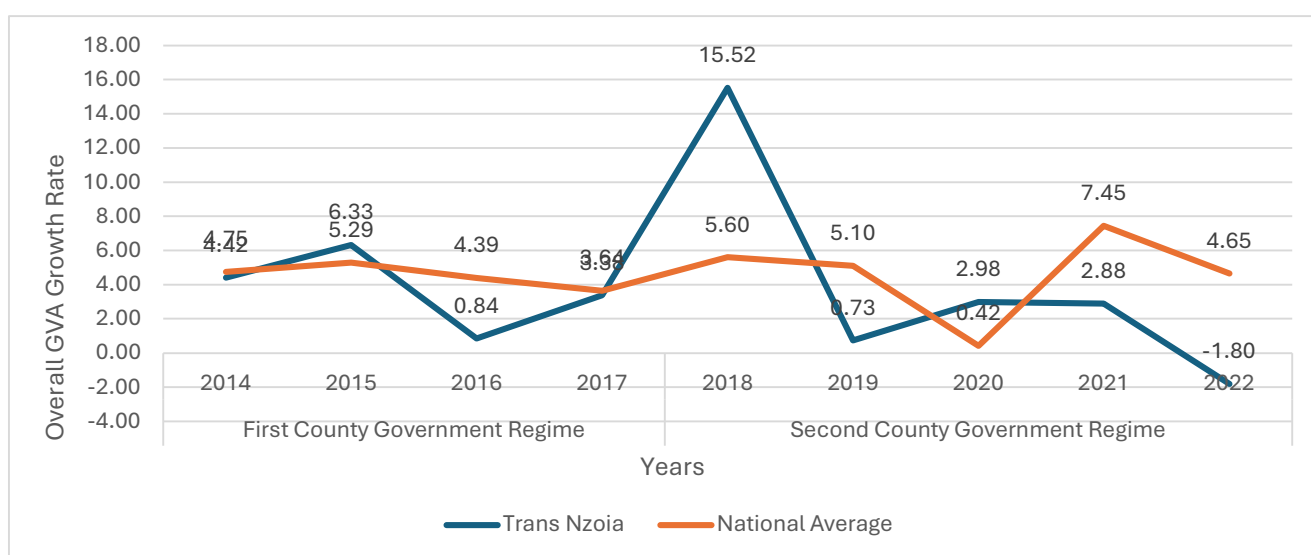
Data Source: KNBS 2023-Gross County Product

Sectoral Analysis of GVA

The services sector is dominant in Trans Nzoia County with an average contribution to GVA of 53.96 per cent. The agriculture sector is second, contributing an average of 38.26 per cent to the GVA while industry sector contributes about 7.84 per cent as shown in Figure 2.

### Figure 2: Contribution of broad sectors to Trans Nzoia County GVA
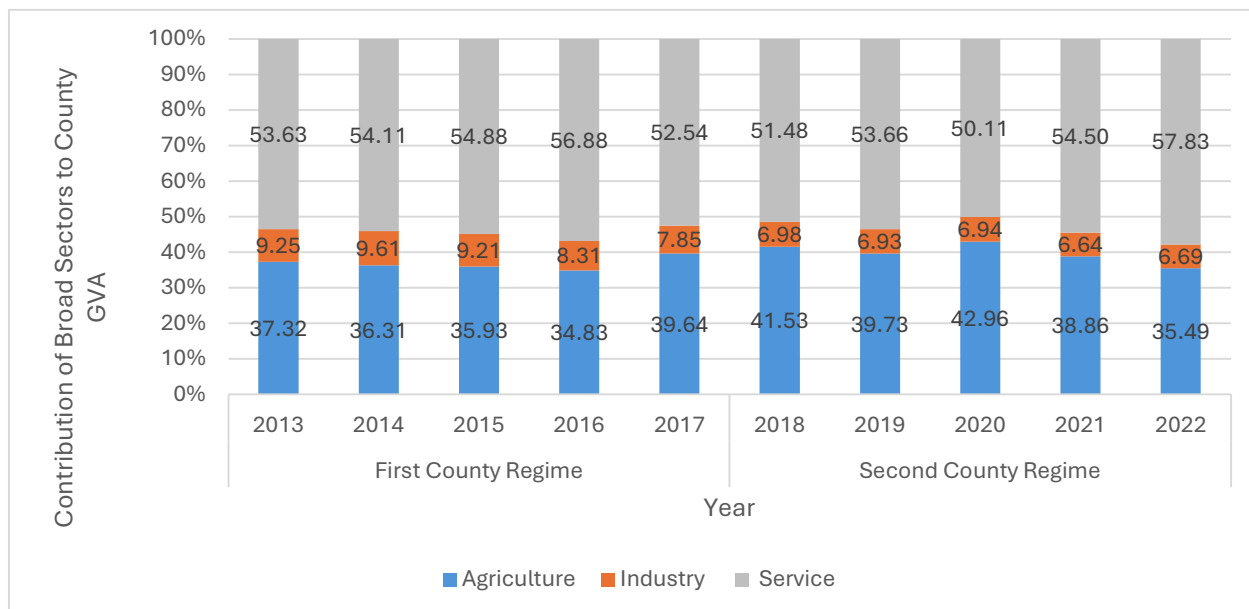
Data Source: KNBS 2023-Gross County Product

Agriculture Sector

The average growth rate for agriculture sector GVA is 10.79 per cent, below the national average of 12.71 per cent. Declines in growth were in 2016, and 2019 and the highest decline in 2021 as shown in Figure 3. While the declines are attributable to the fall armyworm invasion and poor rainfall patterns, it is a concern given the county is one of the food baskets in the country.

Figure 3: Trans Nzoia County agriculture GVA growth rate
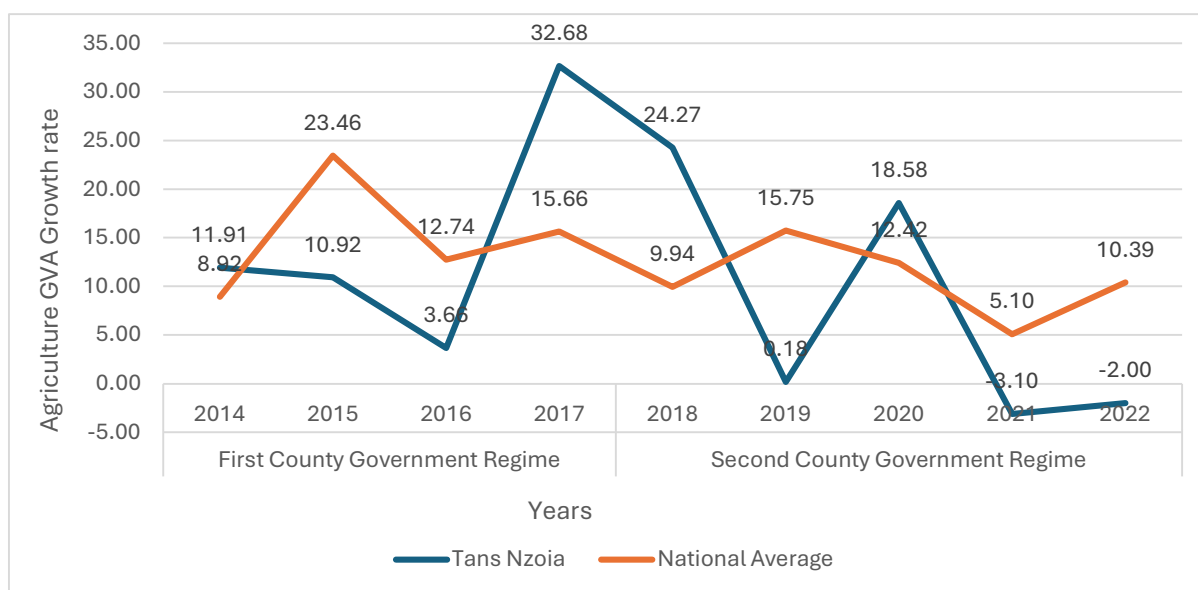
Data Source: KNBS 2023-Gross County Product

Trans Nzoia County is the highest maize producer in the country, on average contributing about 40 per cent to the national production. Although the area under maize production has been increasing over the years, maize production has seen slight increase (Figure 4).

Figure 4: Maize production and area of maize harvested
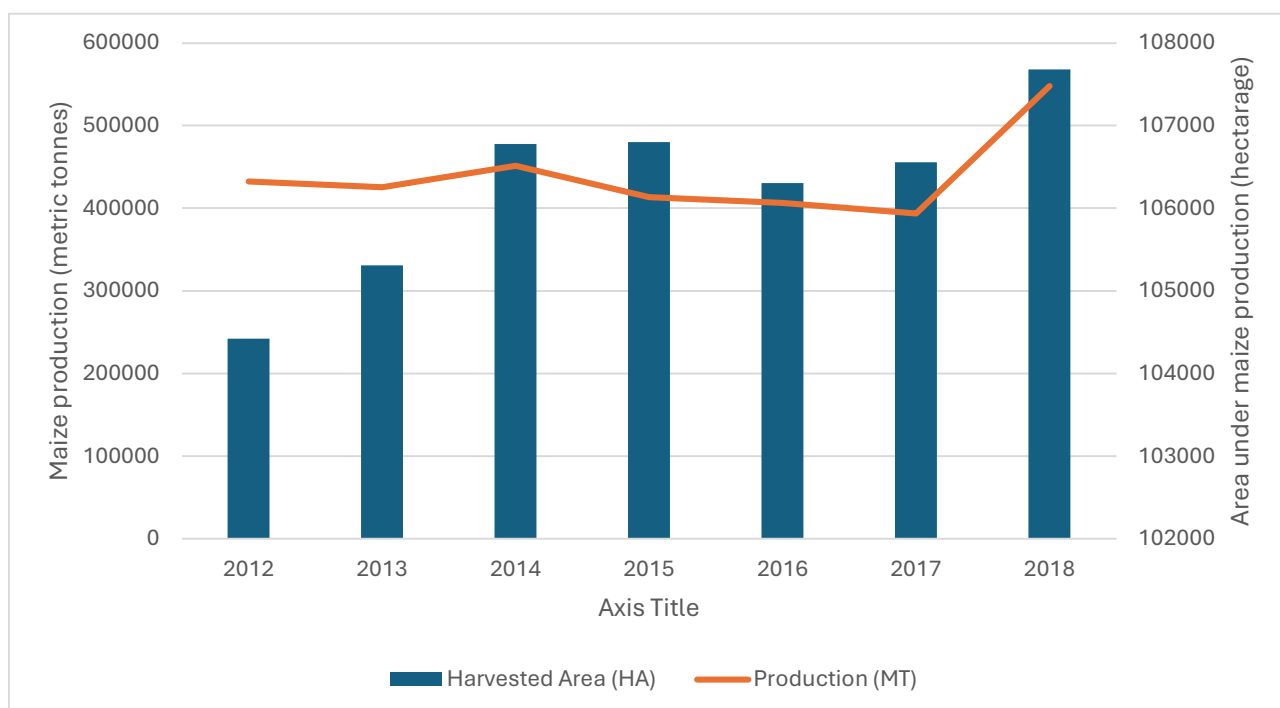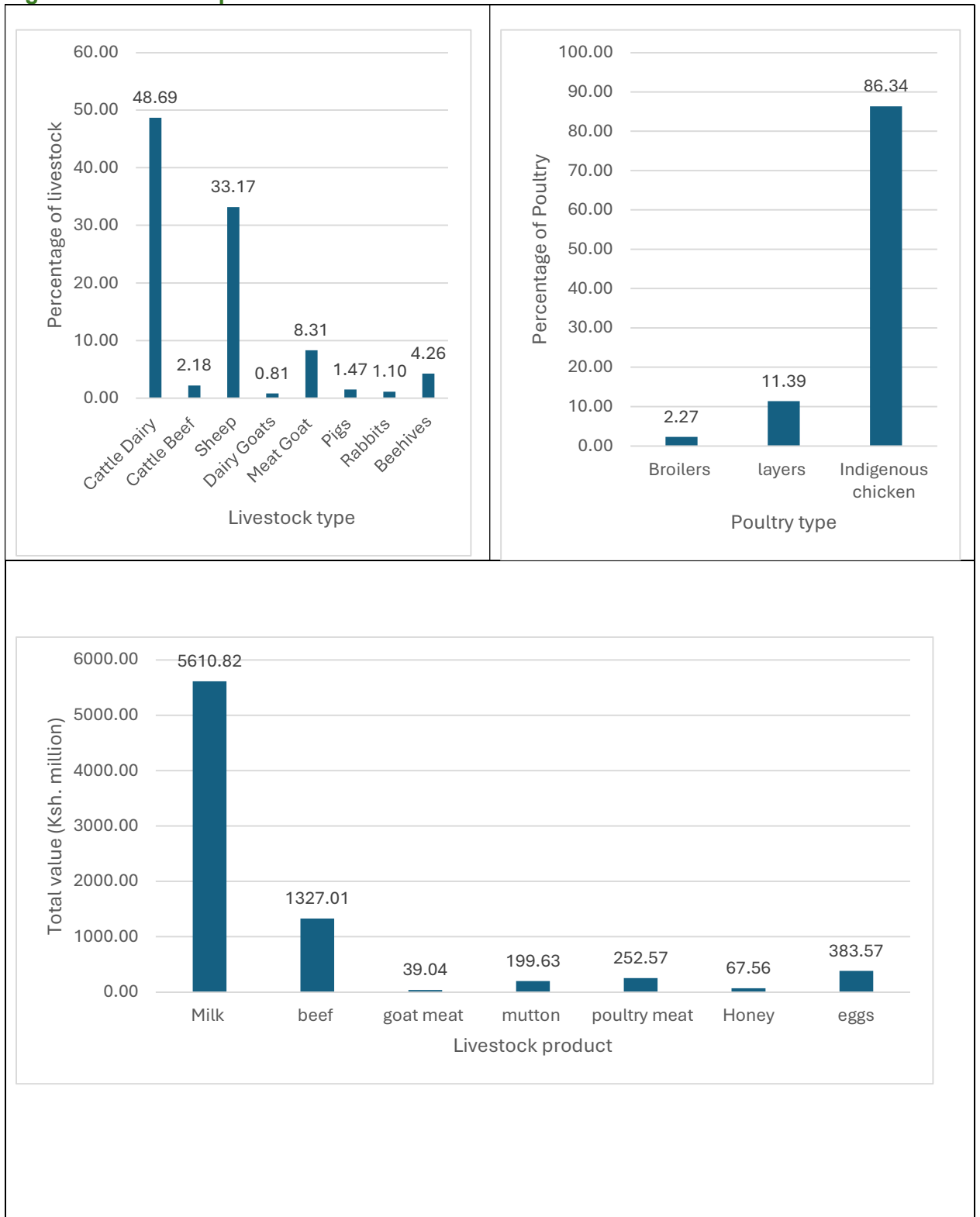

Data source: National Information Platform for Food and Nutrition (NIPFN)

Although overall livestock production in Trans Nzoia County is on a smaller scale when compared to crop production, the county has a considerable number of dairy cattle.

Poultry production is a significant activity dominated by indigenous chicken. The high total value of milk reflects the Trans Nzoia County comparative advantage in dairy farming as shown in Figure 5.

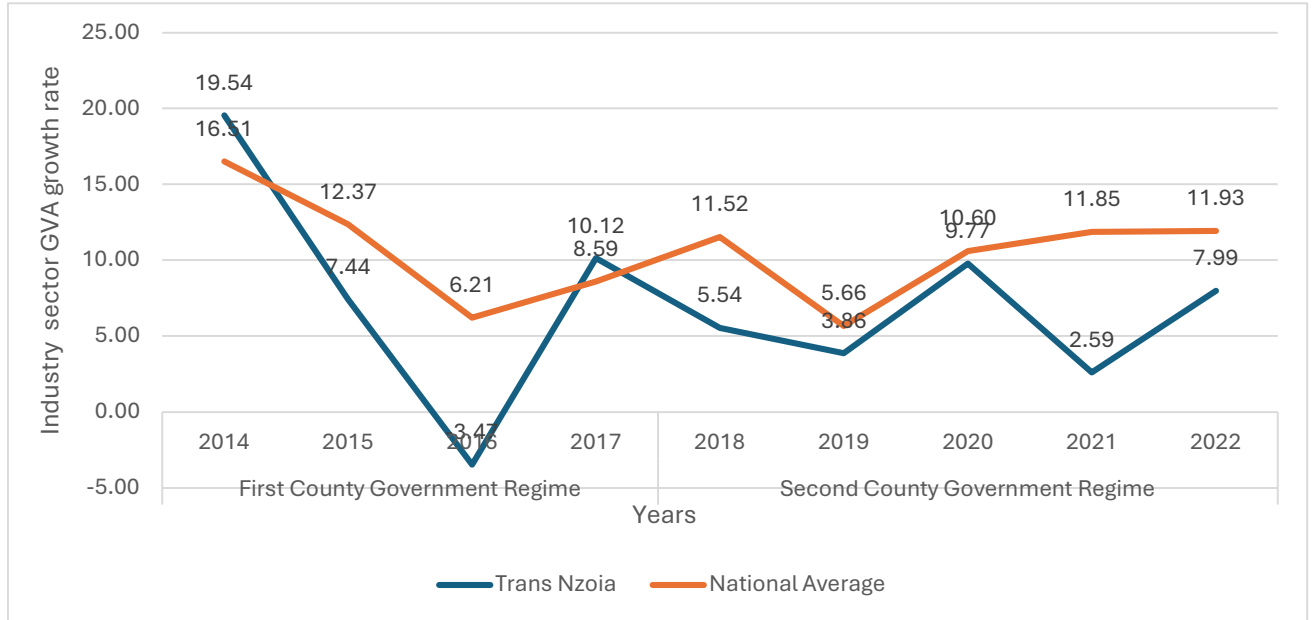**Figure 5: Livestock production statistics**

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

Industry Sector

The average growth rate in industry sector for Trans Nzoia County is 7.04 per cent which is below the national average of 10.58 per cent as shown below in Figure 6.

Figure 6: Trans Nzoia County industry GVA growth rate

Data Source: KNBS 2023-Gross County Product

Construction dominates the industry sector as the contribution of manufacturing declines over the years as shown in Figure 7. This is partly attributed to devolution which has played a key role in infrastructural developments as counties allocate resources to county roads and establish county headquarters. The county is also increasingly urbanizing with a rise in demand for housing and the requisite essential infrastructure.

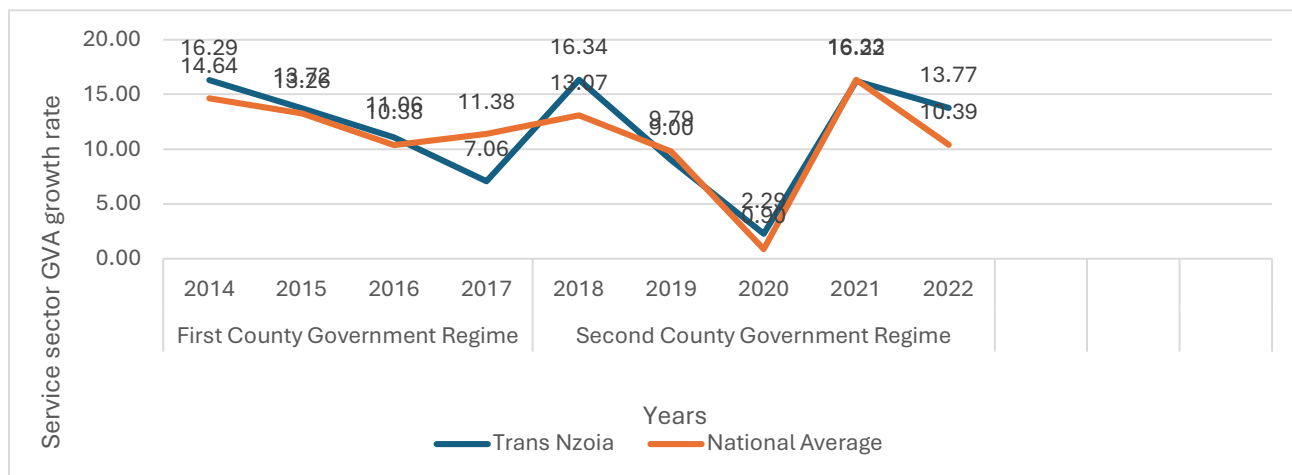**Figure 7: Contribution of industry sub-sectors to industry GVA**
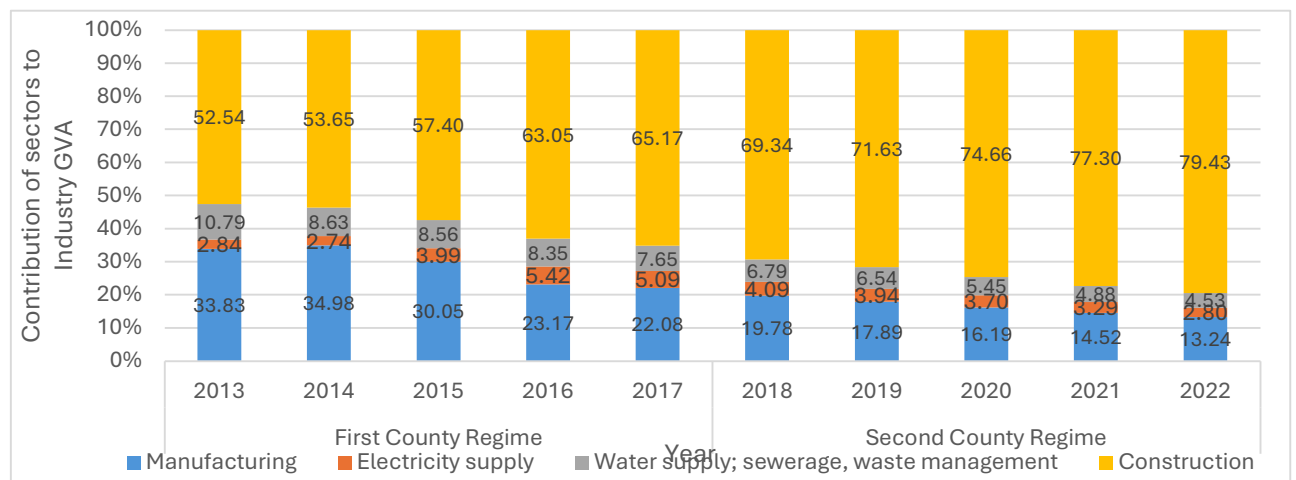
Data Source: KNBS 2023-Gross County Product

Services Sector

The average growth rate for services sector is 12.19 per cent which is above the national average of 11.13 per cent as shown in Figure 8.

Figure 8: Trans Nzoia County services sector GVA growth rate

Data Source: KNBS 2023-Gross County Product

The transportation and storage sub-sector is dominant in the services sector with the highest contribution to services sector GVA at 24.52 per cent. The wholesale and retail trade sub-sector contributes 19.87 per cent and the public administration and defence sub-sector 11.02 per cent as shown in Figure 9.

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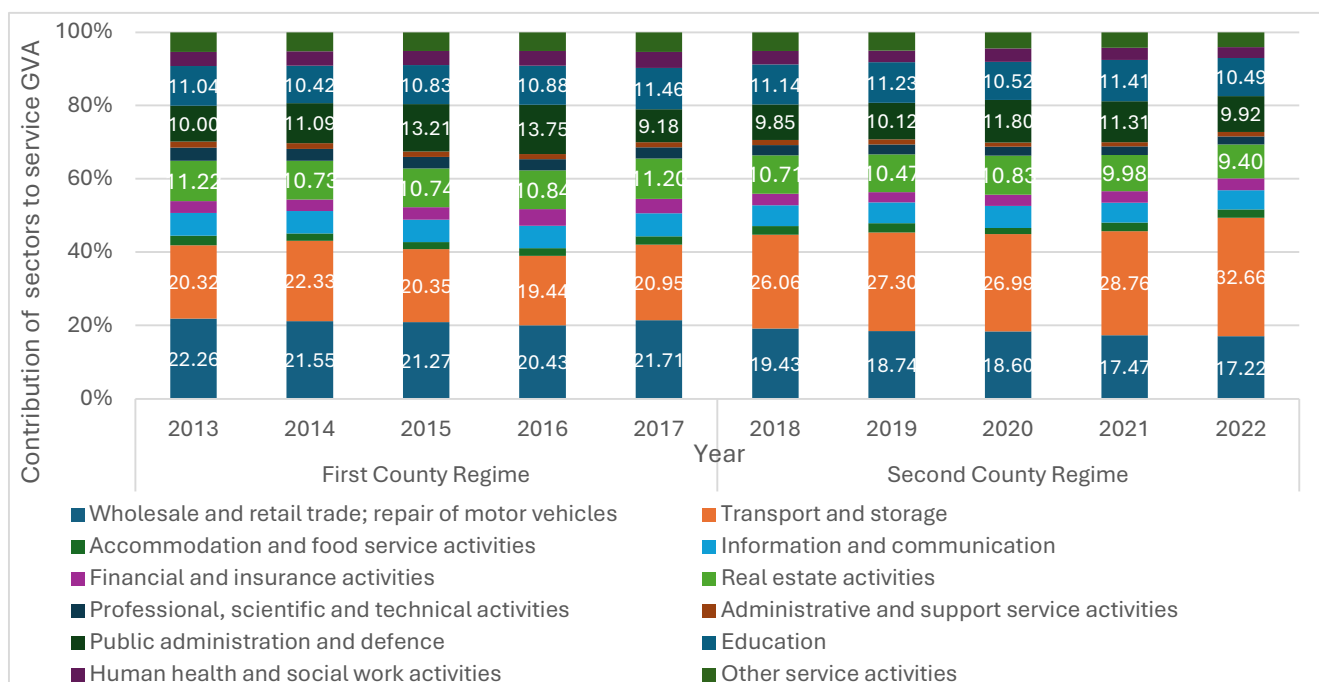
Data Source: KNBS 2023-Gross County Product

Quantity and Quality of Labour Force for Trans Nzoia County

Trans Nzoia County has a total of 534,115 working-age population, which is about 53.93 per cent of the county population. Most of the working-age population is youthful (18-34 years) at 48.81 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	41,459	39,995	81,454	15.25
18 –24	62,927	65,271	128,198	24.00
25-34	61,840	70,649	132,489	24.81
35-64	94,922	97,052	191,974	35.94
Total	261,148	272,967	534,115	

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

Most of the population in Trans Nzoia sub-counties are persons in the working age categories. Kiminini has the highest percentage of working-age persons at 55.55 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	
Trans Nzoia West	202,372	15,906 (14.21)	27,440 (24.52)	30,617 (27.36)	37,958 (33.91)	111,921 (55.30)
Trans Nzoia East	229,527	19,492 (15.89)	29,403 (23.97)	28,042 (22.86)	45,736 (37.28)	122,673 (53.45)
Kwanza	203,818	16,667 (15.48)	25,351 (23.54)	26,389 (24.50)	39,293 (36.48)	107,700 (52.84)
Endebess	111,779	9,334 (16.40)	13,943 (24.49)	14,268 (25.06)	19,386 (34.05)	56,931 (50.93)
Kiminini	242,817	20,055 (14.87)	32,061 (23.77)	33,173 (24.59)	49,601 (36.77)	134,890 (55.55)

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

Trans Nzoia Count highly performed in socioeconomic indicators that affect the quality of labour, however, interventions are needed to reduce the percentage of teenage pregnancy and the stunting levels (Table 3).

Table 3: Human capital Indicators

Human capital indicators	County	National average
Literacy rate	90.70	78.41
Pre-primary net enrolment rate (2019)	70.27	67.51
Primary school net enrolment rate (2020)	89.30	77.72
Secondary school net enrolment rate (2020)	62.80	54.18
Average years of schooling (2014)	7.90	7.78
Percentage of children 12 -23 months fully vaccinated (%)	63.90	74.97
Percentage of stunted children	21.30	19.75
Percentage of teenage pregnancy	17.80	15.79
Primary to secondary transition rates (2020)	86.80	86.13
Pupil-teacher ratio (primary school)	35.00	28.28
Food poverty head count (%)	28.10	33.63
Child poverty head count (%)	37.50	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

Trans Nzoia County has higher performance in essential infrastructure and capital indicators compared to national average. However, interventions are needed to access electricity, internet, improved sanitation, and quality housing as shown in Table 4.

Table 4: Essential infrastructure and other resources indicators

Essential infrastructure indicators	County	National average
Percentage of households with access to electricity (2019 Census	37.90	38.52
Distribution of population using the internet (2019 census)	16.90	18.69
Rural Access Index (2018)	64.18	63.72
Access to improved sanitation (2018)	36.00	59.04
Access to improved water (2018)	79.80	65.33
Financial inclusion level (2021)	89.30	81.01
The proportion of primary schools with internet	28.90	27.65
Proportion of secondary schools with functional internet	26.80	35.13
Percentage of households by housing material composite-finished materials(adequate) (2019)	48.15	51.71
Percentage of households using bank usage (overall)	60.00	38.18
Percentage of households using mobile money	88.20	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 high at 60.37 per cent. Most of those working are the non-youth working population (35-64 years) at 30.37 per cent while the youth (18-34 years) is at 28.91 per cent as shown in Table 5. There is little disparity in employment by gender as the percentage of the employed male is 35.96 per cent while female is 36.87 per cent. The unemployment rate is at 7.05 per cent and slightly higher for the youth (18-34 years) at 4.41 per cent. The percentage of persons 5–17 years old working is 4.34 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 while it is low for persons of prime age (25-64 years) which indicates high labour utilization.

Table 5: Trans Nzoia county employment statistics

Employment statistics	Youth	Non youth
Employment to population ratio (%)	28.91	30.37
Unemployment rate	4.41	2.46
Percentage of persons 5–17 years old working	4.34	-
Inactivity rate	25.79	6.11

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

Sectoral Employment

The agriculture sector is the highest employer in Trans Nzoia County at 79.61 per cent followed by the services sector at 16.50 per cent. The industry sector is third at 3.89 per cent as shown in Figure 10.

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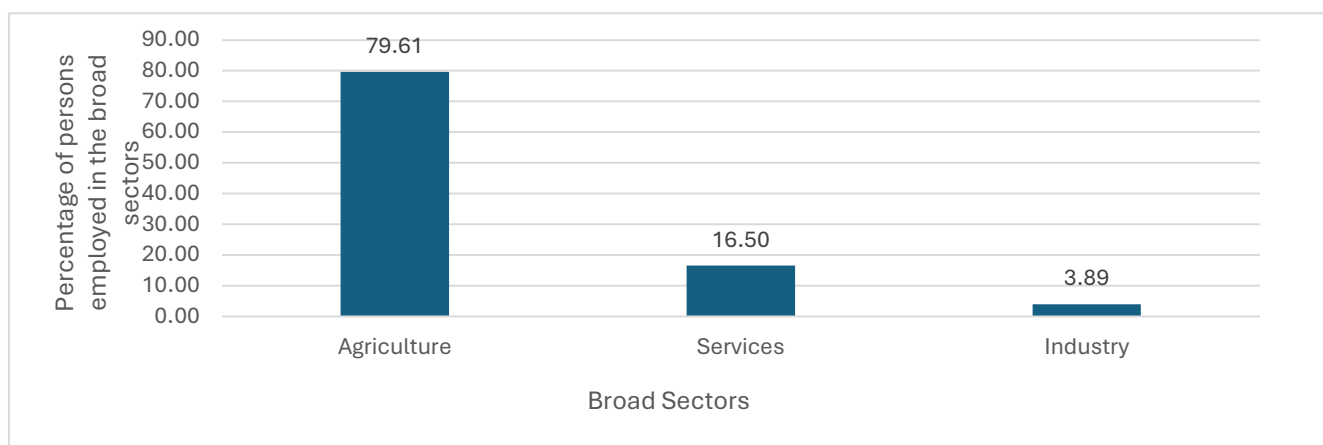
Data Source: KNBS 2021- Kenya Continuous Household Survey

Agriculture Sector Employment

In agriculture sector, the majority are those practicing crop production as shown in Figure 11. This reflects the county's high potential in crop production and dairy farming.

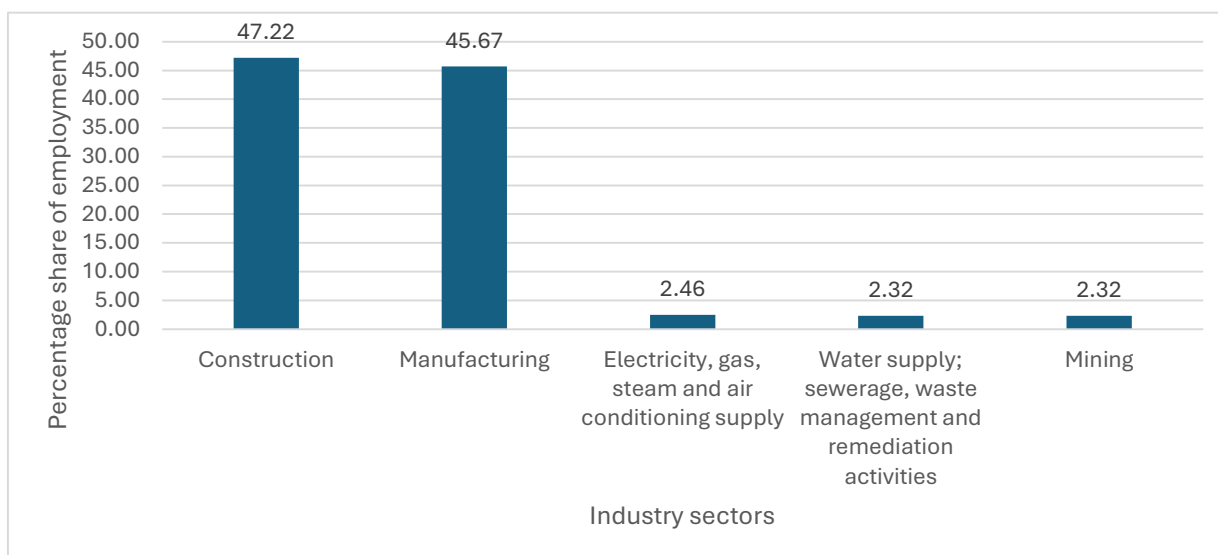**Figure 11: Percentage share of employment in agriculture sub-sectors**
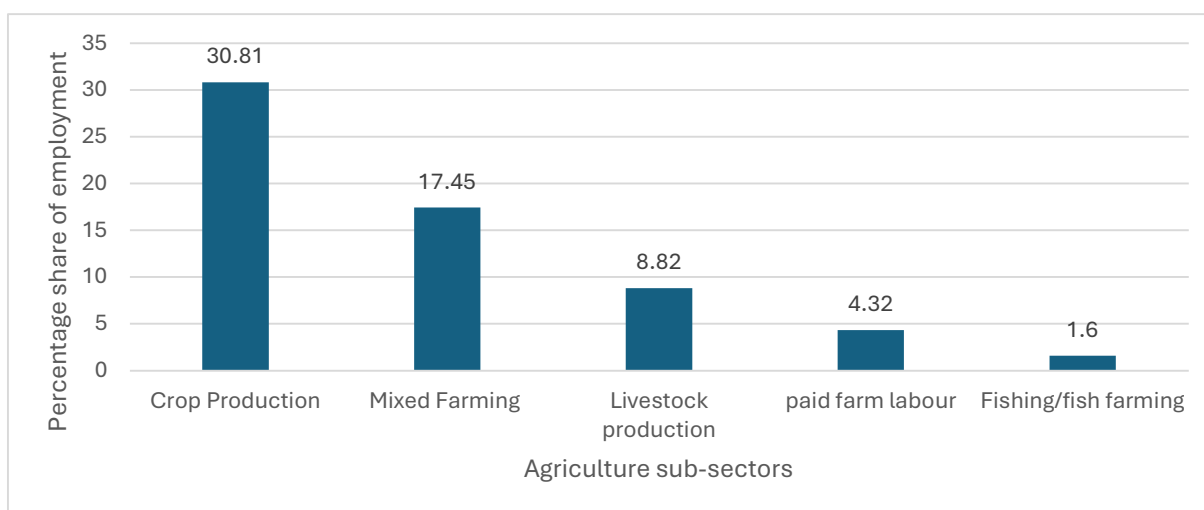
Data Source: KNBS 2021- Kenya Continuous Household Survey

Industry Sector Employment

The majority of those working in the industry sector are in the construction and manufacturing sub-sectors. The main activity in construction is the construction of buildings while the mining sub-sector in the county majorly entails the quarrying of stones as shown in Figure 12.

Figure 12: Percentage share of employment in the industry sectors

Data Source: KNBS 2021- Kenya Continuous Household Survey

A disaggregation of employment in manufacturing shows that the majority of those employed in the sector work are in low-technology manufacturing sub-sectors such as the manufacture of food, beverages and tobacco products and textile and wearing apparel industries as shown in Figure 13.

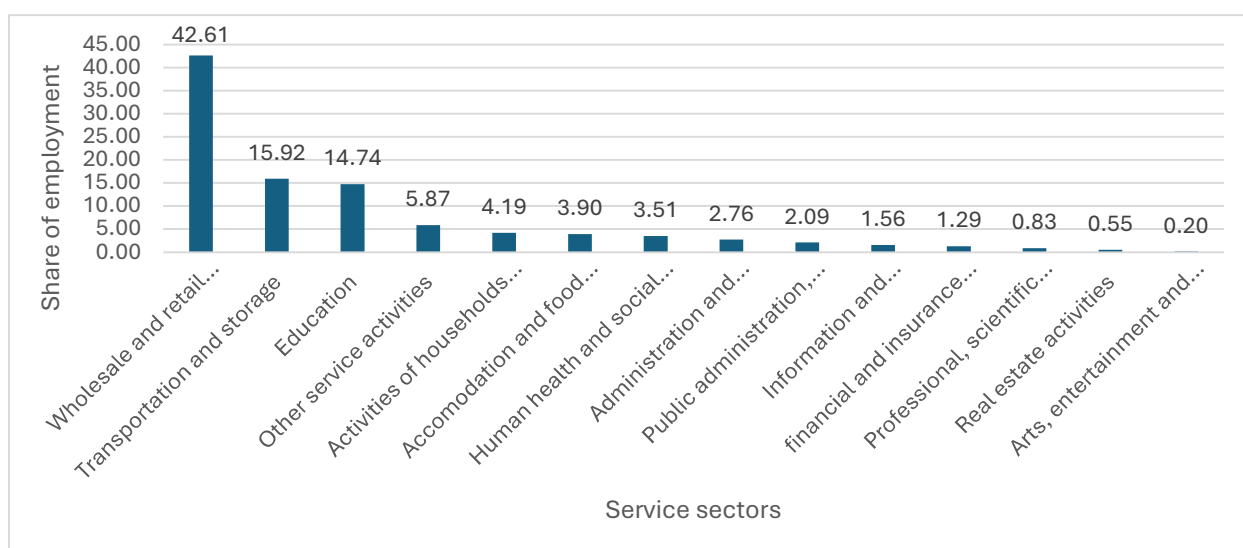**Figure 13: Percentage share of employment in manufacturing sub-sectors**
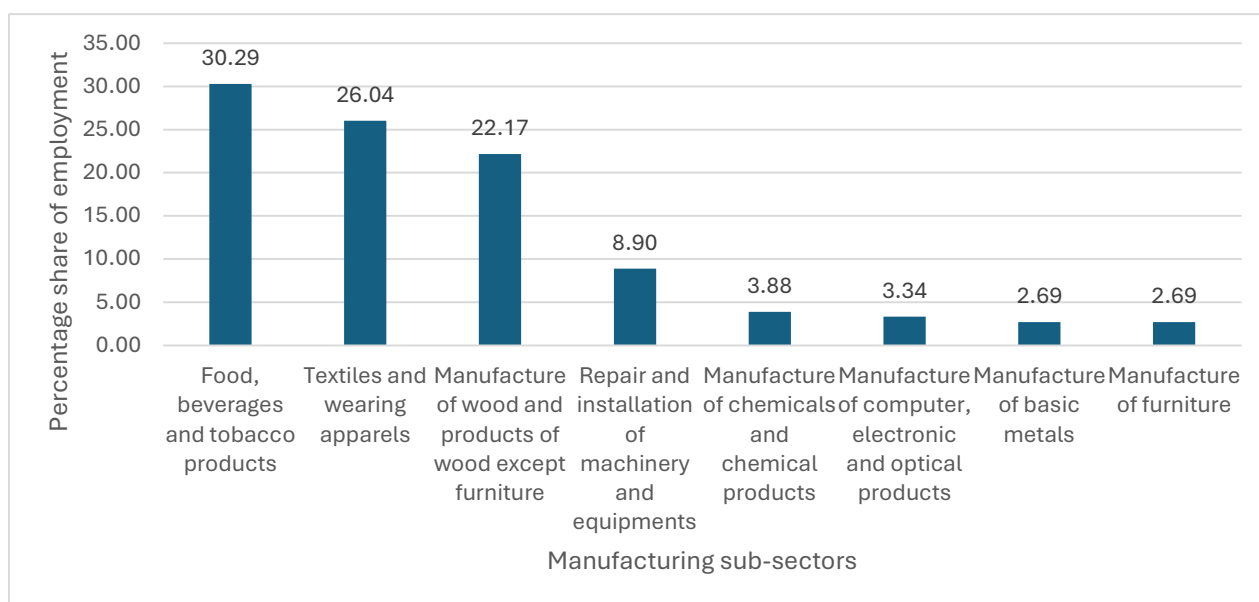
Data Source: KNBS 2021- Kenya Continuous Household Survey

Services Sector Employment

The majority of those working in the services sector are in wholesale and retail trade as shown in Figure 14. Retailing and wholesaling industries represent the intermediate steps in the distribution of merchandise between producers and consumers of goods. Despite the higher share of employment in the service sector, the output of the sector remains low with the sector having elevated levels of informality.

Figure 14: Percentage share of employment in the service sector

Data Source: KNBS 2021- Kenya Continuous Household Survey

In the wholesale and retail trade sub-sector the majority work in retail via stalls and markets and retail sales that are not in markets (mainly in the form of hawking) as shown in Figure 15.

Figure 15: Percentage of persons employed in the wholesale and retail trade; repair of motor vehicle sub-sectors
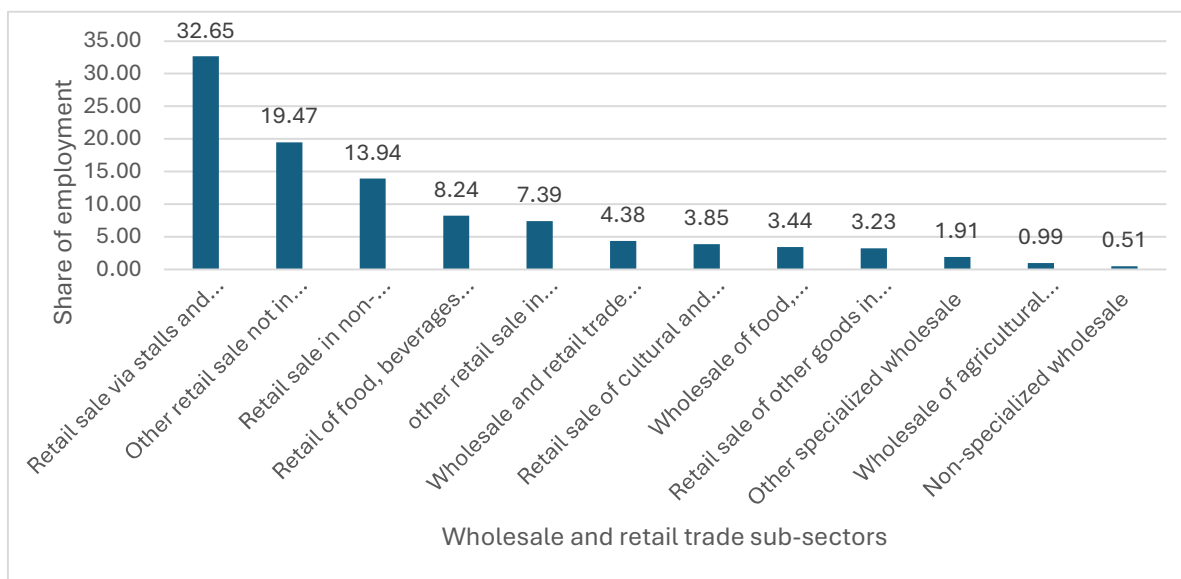
Data Source: KNBS 2021- Kenya Continuous Household Survey

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

Figure 16: Percentage share of employment in the transportation and storage sub-sectors
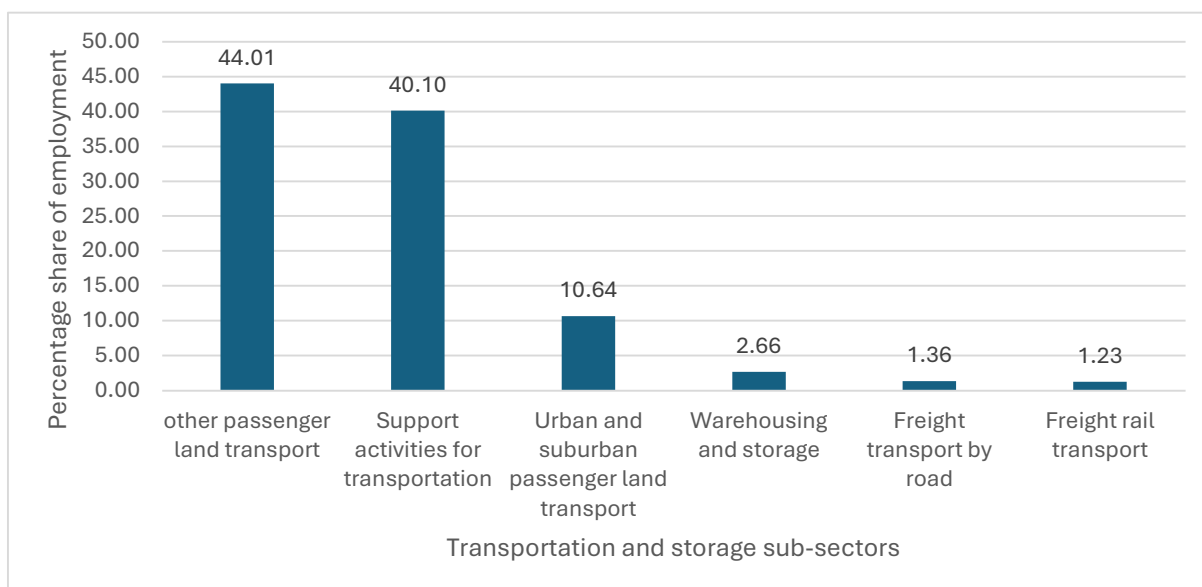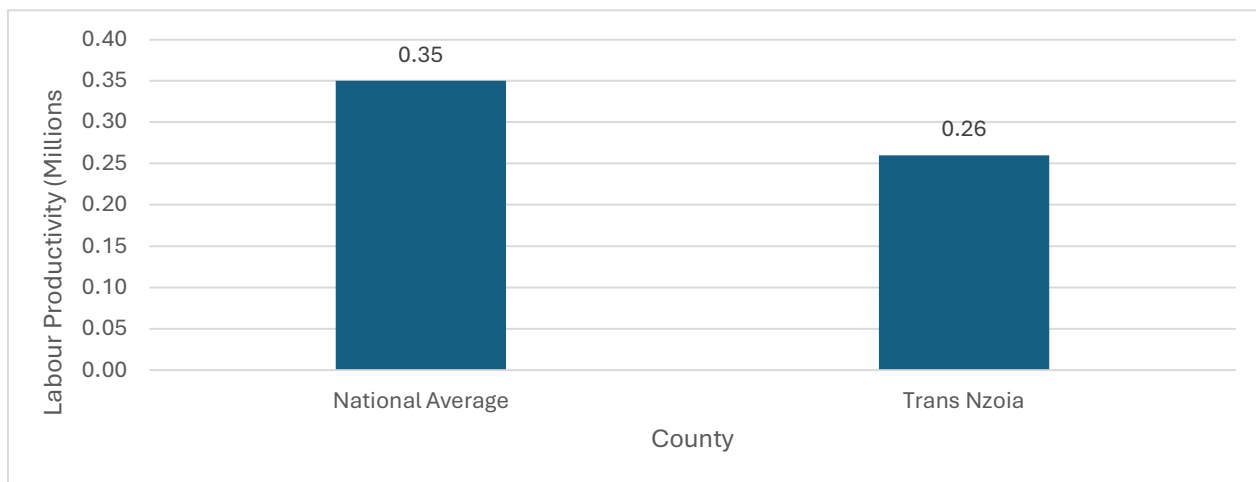

Data Source: KNBS 2021- Kenya Continuous Household Survey

Labour Productivity

Labour productivity[1] for Trans Nzoia County is below 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 has the highest productivity, followed by the industry sector, while the agriculture sector has the least labour productivity (Figure 18).

Figure 18: Labour productivity by sectors
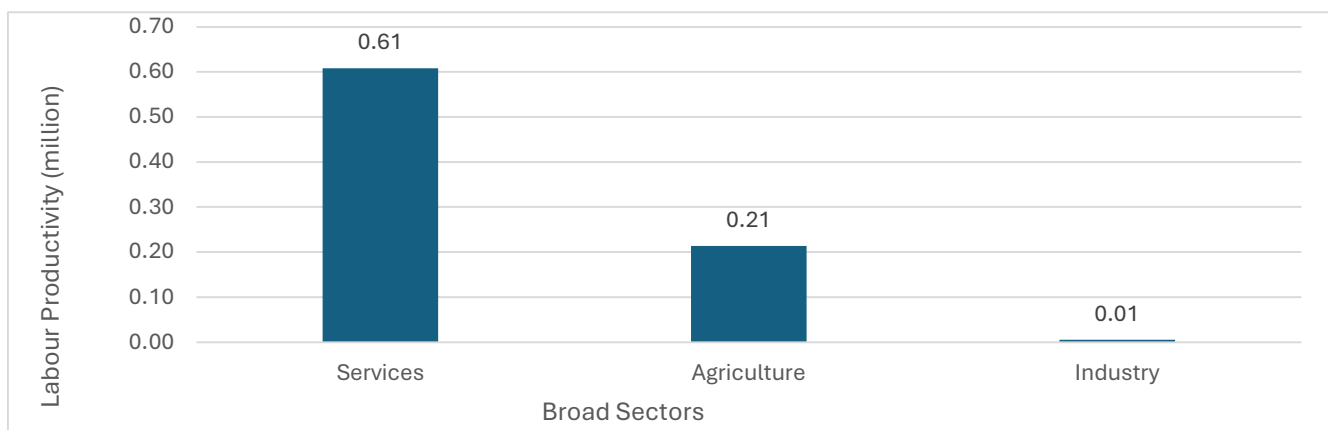
Data Source: Author's computation using KNBS 2023-Gross County Product and KNBS 2021- Kenya Continuous Household Survey

Agriculture Productivity

In agriculture sector, given the county's comparative advantage in maize farming, maize yields are high. Despite this, they have remained constant over the years with an average of 4.13 MT/HA (Figure 19). Interventions such as improving soil health, the use of new

---

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

farming techniques, and controlling pests and diseases will enable the county to exploit the potential it has in maize farming.

Figure 19: Maize yield (MT/HA)
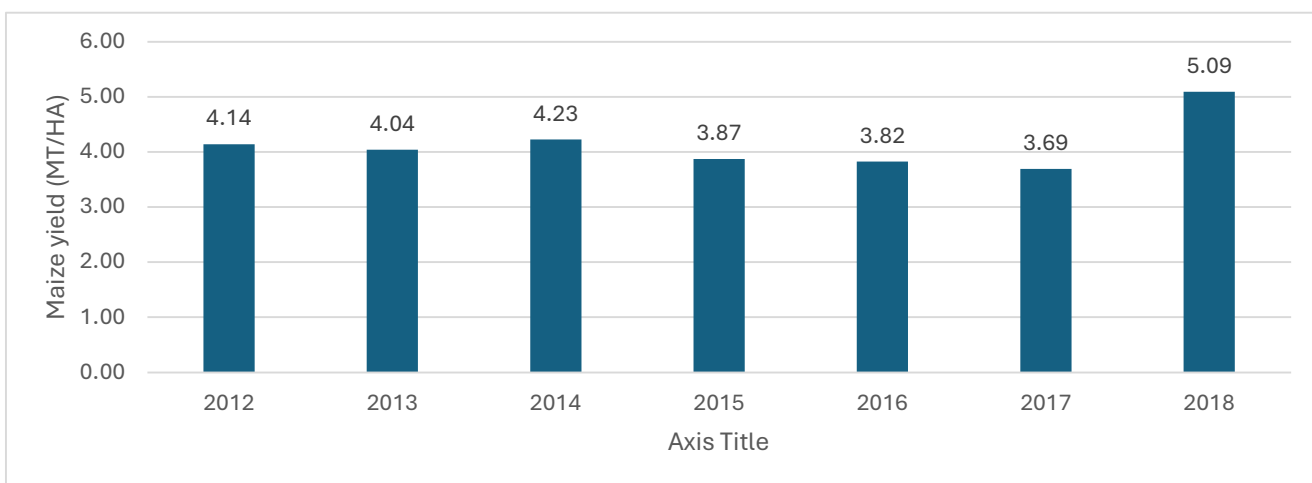
Data source: National Information Platform for Food and Nutrition (NIPFN)

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 sector as shown in Figure 20.
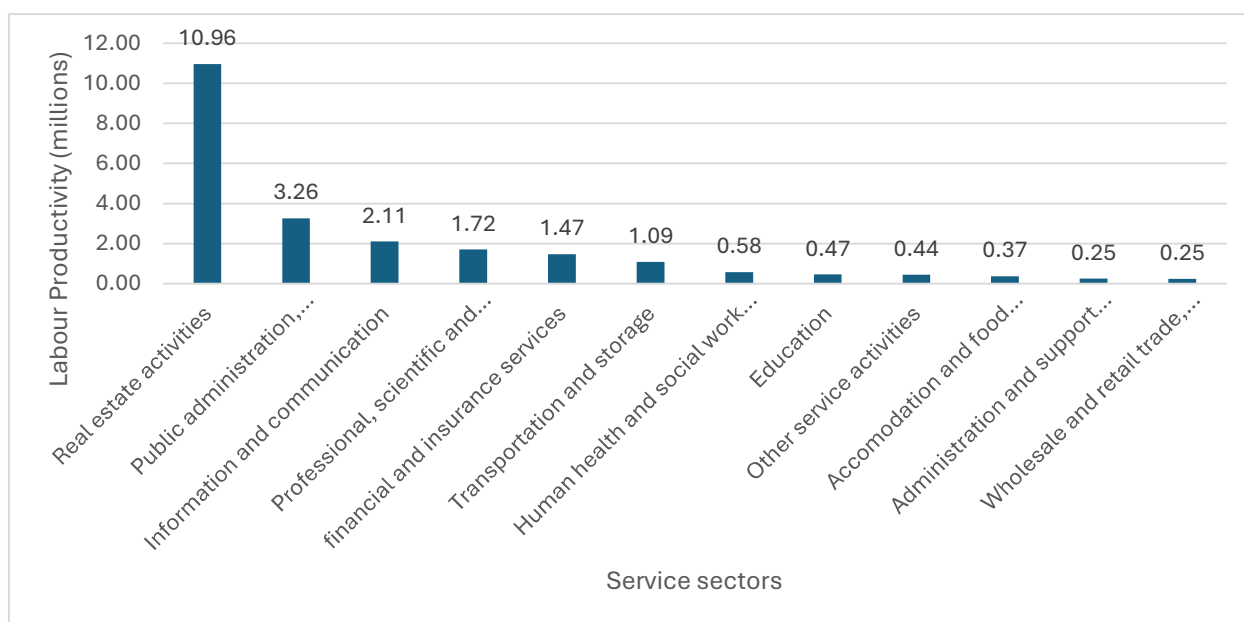
Figure 20: Labour productivity by Industry sectors
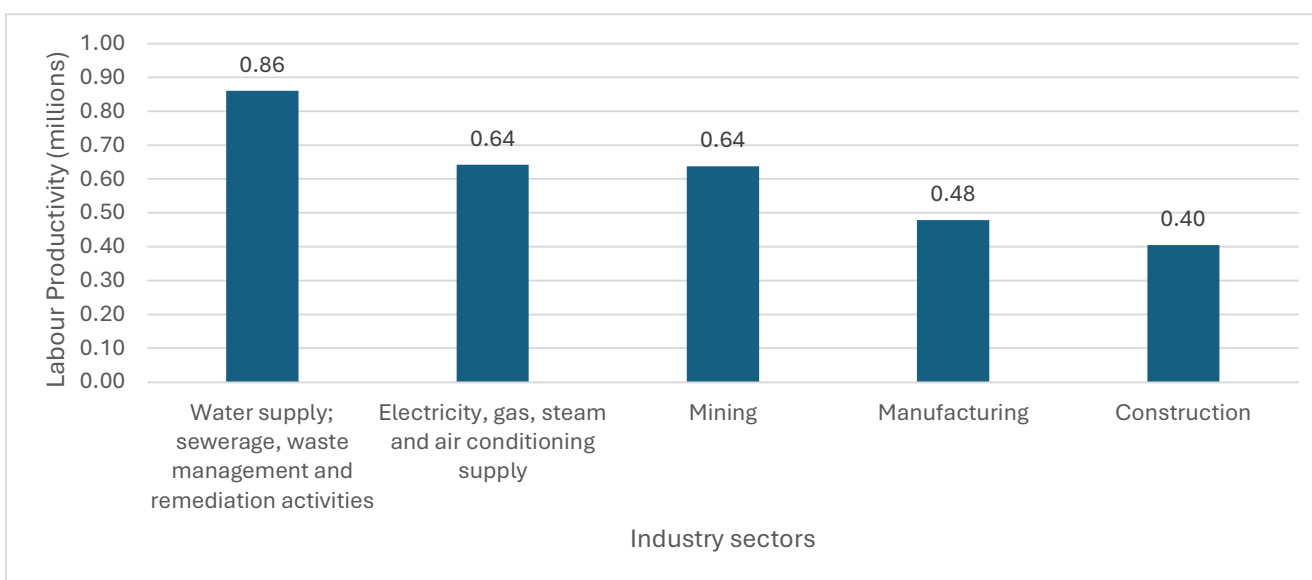
Data Source: Author's computation using KNBS 2023-Gross County Product and KNBS 2021- Kenya Continuous Household Survey

Services Sector Labour Productivity

The real estate sub-sector had higher labour productivity when compared with other sub-sectors within the services sector as shown in Figure 21.

Figure 21: Labour productivity in services 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 dominates the share of GVA with transportation and storage taking a large share. Agriculture sector is second largest sector despite the high potential in crop production and dairy farming. The constant maize production (metric tonnes) that seems not to correspond to the increases in the area under maize production causes concerns as the county is the highest producer of maize in the country and is key in enhancing national food security. The industry sector has been declining and it has the lowest contribution at less than 10 per cent despite the potential for agro processing. Manufacturing share is declining as the construction sub-sector expands to dominate the industry sector GVA.

(ii)   Although most indicators of the quality of labour are within the national average, significant efforts are required to enhance secondary school enrolment, reduce the high number of teenage pregnancies, improve on immunization of children, and address stunting. Furthermore, significant efforts are required to address food and child poverty.

(iii)   Several of the essential infrastructure indicators are below the national average. Significant efforts are required to enhance access to electricity, improve sanitation, and housing, and increase internet connectivity.

(iv)   The agriculture sector has the highest employment with a significant engagement in crop production. There is potential for livestock production and maize production which has increased significantly since 2014. Industry sector has a large share of employment in construction and manufacturing. In manufacturing sector, food, beverages, and tobacco products as well as textile and wearing apparel have the largest share.

(v)   Labour productivity is below the national average. The services sector has the highest productivity while the industry sector has the lowest. In agriculture sector, there is potential to increase maize yield and livestock production. In services sector, real estate has the highest real estate activities, while in industry manufacturing and construction perform poorly. Water supply, sewerage, waste management, and remediation activities have the highest productivity.

Policy Recommendations

(i)   Enhance crop production including maize production by supporting the farmers with extension services, input subsidies, and prompt responses to pests and diseases. Further, support livestock production by enhancing integration into the dairy and leather value chain. This can be achieved through milk co-operative societies and milk processing, improved breeds, and enhanced fodder and feed production.

(ii)   Encourage investments in manufacturing to support the transformation of the agriculture sector through agro-processing and textile industry. This includes supporting the County Aggregation Industry Park to enhance the productivity of the MSMEs.

(iii)   Secure and improve the quality of labour by encouraging 100 per cent transition to secondary school to facilitate upgrading skills development. Further, implement nutritional programmes that reduce stunting and child poverty. Encouraging the immunization of children is critical in securing future labour productivity.

(iv)   Create an enabling environment to attract investments and grow the private sector by investing in enhanced access to electricity, improved sanitation, and housing, and increased internet connectivity.

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.