Assessing Labour Productivity for Nandi County

By Cecilia Naeku and Esther Irungu

Overview of the County

Nandi County is a member of the North Rift Economic Bloc (NOREB). The county is classified as a non-ASAL county experiencing less than 10 per cent aridity. The county land size stands at 2,884 km² and has six Sub-Counties namely: Chesumei, Nandi Central, Nandi East, Nandi North, Nandi South, and Tinderet.

Key Highlights

The productivity of Nandi County is characterized by the following:

(i)   The agriculture sector has the largest share of County Gross Value Added (GVA) with a comparative advantage in crop, dairy, and poultry farming. Manufacturing dominates the industry sector while the public administration and defence sub-sector dominates the service sector.

(ii)   The quality of labour requires efforts to increase secondary school enrolment rates and reduce stunting, and child and food poverty.

(iii) The essential infrastructure requires increased access to electricity, internet connectivity, improved water, rural roads, financial inclusion, and adequate housing.

(iv)   The agriculture sector is the highest employer with the majority practicing crop production. Employment in manufacturing is in agro-processing and repair industries. Those in wholesale and retail trade are in retail not in stalls, stores, and markets.

(v)   Labour productivity is highest in the services sector. Agriculture has the lowest labour productivity despite the potential for maize production. In industry, manufacturing has the highest productivity.

To enhance productivity, there is a need to:

(i)   Increase agriculture productivity by integrating small farmers into the dairy and leather value chains, and support emerging activities including fish farming, apiculture, and poultry farming.

(ii)   Invest in manufacturing to transform the mining and agriculture sector and support the implementation of the County Aggregation Industry Park to enhance the productivity of the MSMEs.

(iii)   Secure quality of labour with nutritional programmes, creating awareness and supporting teenage mothers to go back to school, and encouraging secondary school enrolment.

(iv)   Create an enabling environment for private sector growth by investing in essential infrastructure to improve access to electricity and internet, housing, and water.

(v)   Provide appropriate market infrastructure to diversify the services sector beyond the dominant non-market services.

Nandi County Economic Performance

Nandi County contributes on average to 1.5 percent of the National Gross Value added with an average GVA of Ksh. 111,6639 million. The GVA per capita for Nandi County is Ksh. 126,075.7444 with an average population growth of 1.9 per cent and overall poverty levels at 35.7 per cent. Nandi County has shown a steady growth in GVA with an average growth rate of 4.07 percent in 2013-2022 which is lower than the national average growth of 4.37 percent. The highest growth rate was in 2018 as shown in Figure 1.

Figure 1: Nandi County GVA growth rate
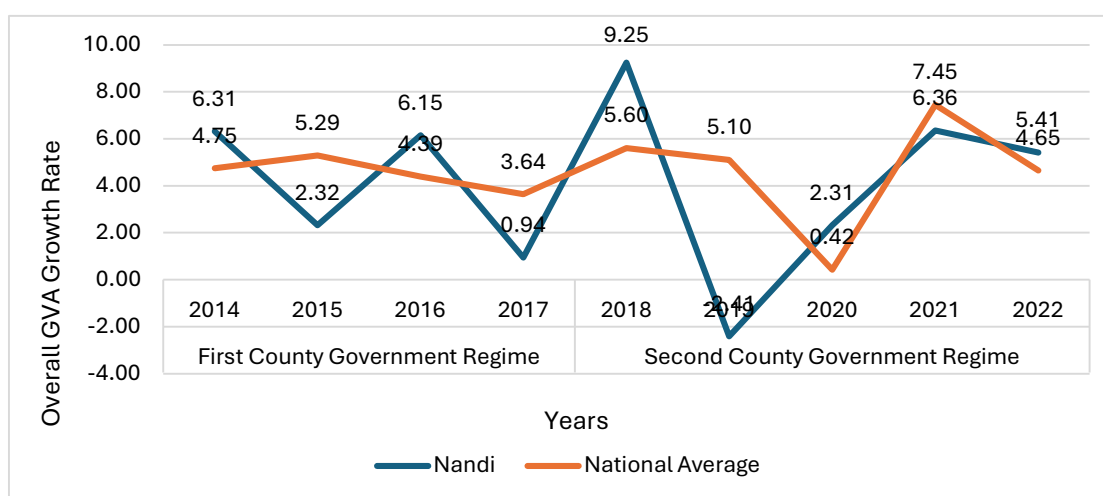
Data source: KNBS 2023-Gross County Product

Sectoral Contribution to County Gross Value Added

The agriculture sector is dominant in Nandi County with an average contribution to GVA of 57.72 percent. The services sector is second, contributing an average of 32.99 percent to the GVA while the industry contributes about 9.36 percent as shown in Figure 2.

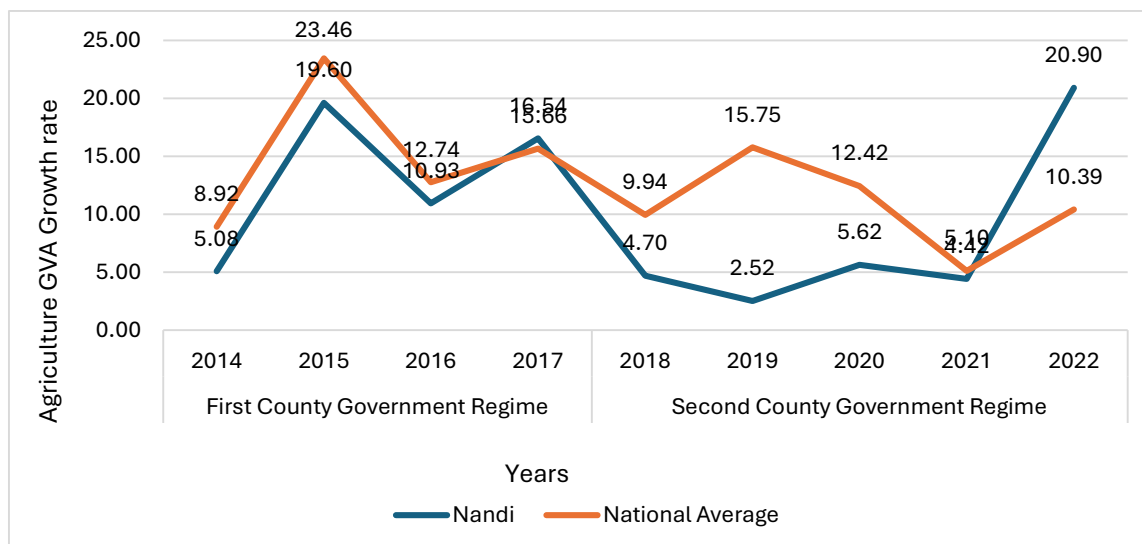**Figure 2: Contribution of broad sectors to Nandi County GVA**
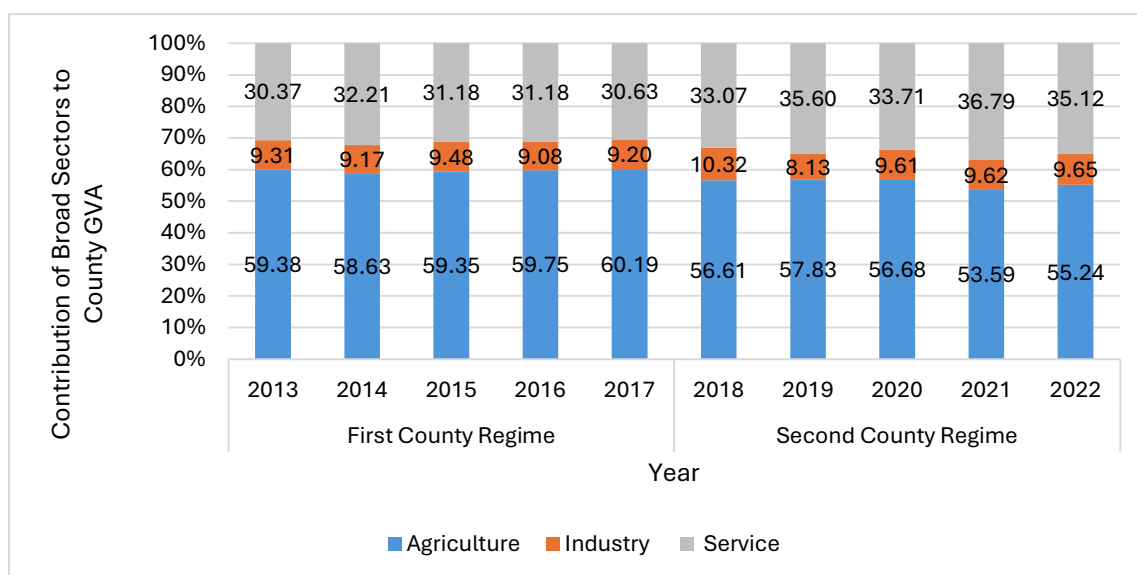
Data source: KNBS 2023-Gross County Product

Agriculture Sector

The average growth rate in agriculture GVA in 2013-2022 is 10.03 percent, which is below the national average of 12.71 percent as shown in Figure 3.

Figure 3: County agriculture GVA growth rate

Data source: KNBS 2023-Gross County Product

Crop production is the main sub-sector in the agriculture sector, among the main food crops grown include maize, beans, and potatoes. Cash crops grown are tea, coffee, and sugarcane. Maize, the main staple food in the country is also the dominant food crop grown in the county. The area under maize production has largely been constant but decreasing in 2018. Likewise, maize production (metric tonnes) has been constantly declining in 2018 (Figure 4).

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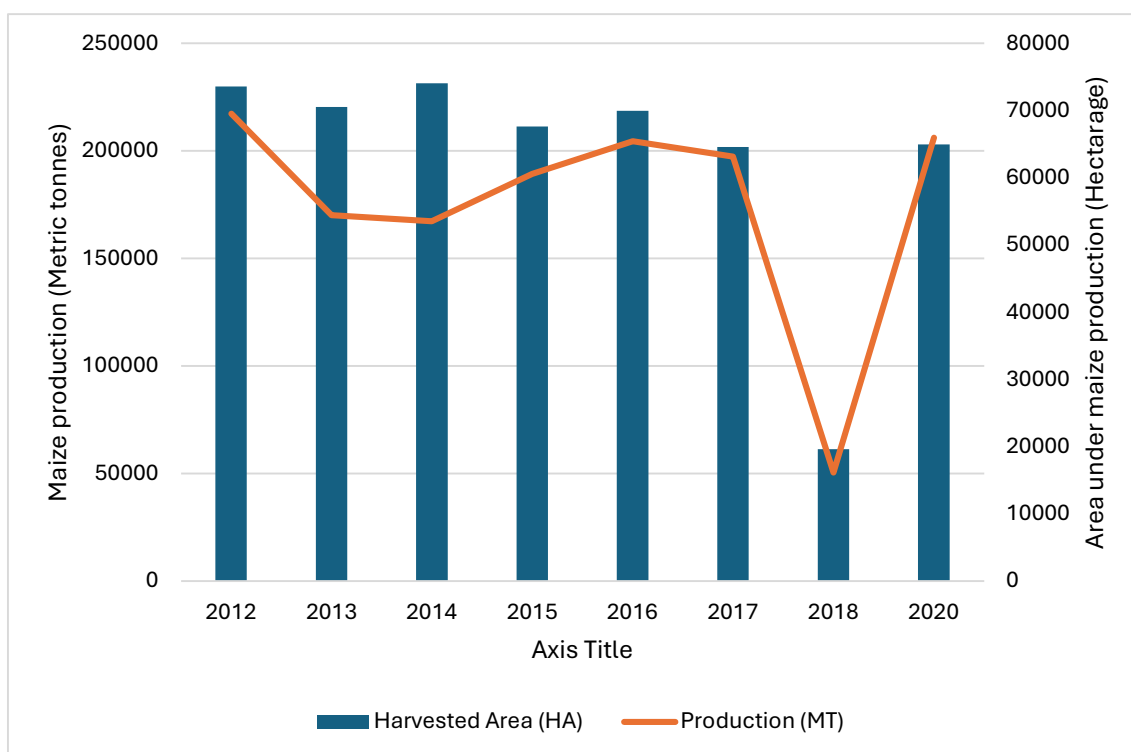
Data source: National Information Platform for Food and Nutrition (NIPFN)

Livestock production is on a smaller scale compared to crop production. The main livestock kept are dairy cattle, sheep, and meat goats (Figure 5). The county has a substantive dairy industry supported by the higher number of dairy cattle and the presence of milk processors. Poultry farming is also very common in the county with the indigenous chicken being the dominant. Milk has the highest economic value among the livestock products reflecting the comparative advantage the county has in dairy farming. Poultry meat and eggs also have high values indicating comparative advantage in poultry farming.

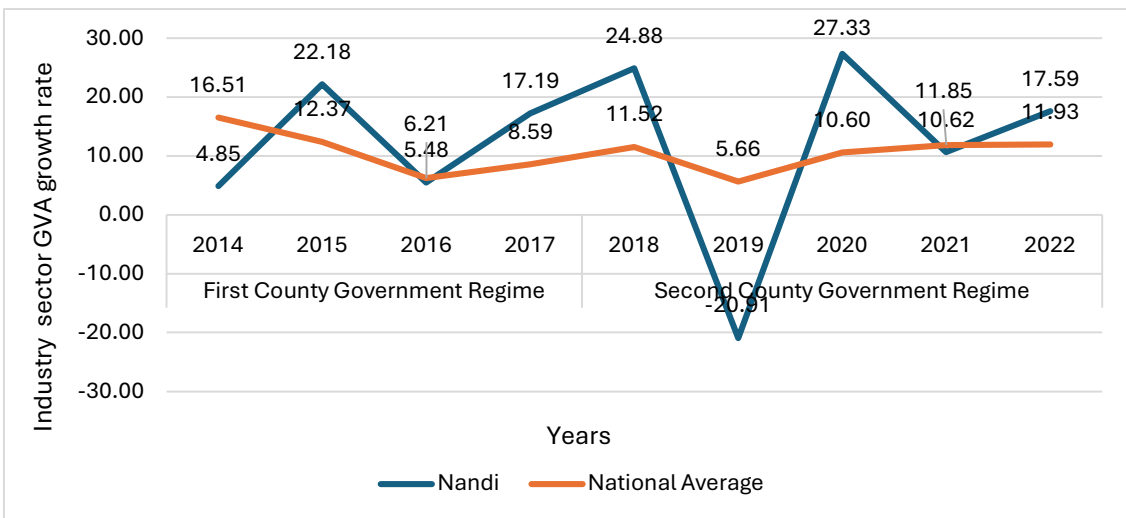**Figure 5: Livestock production statistics**
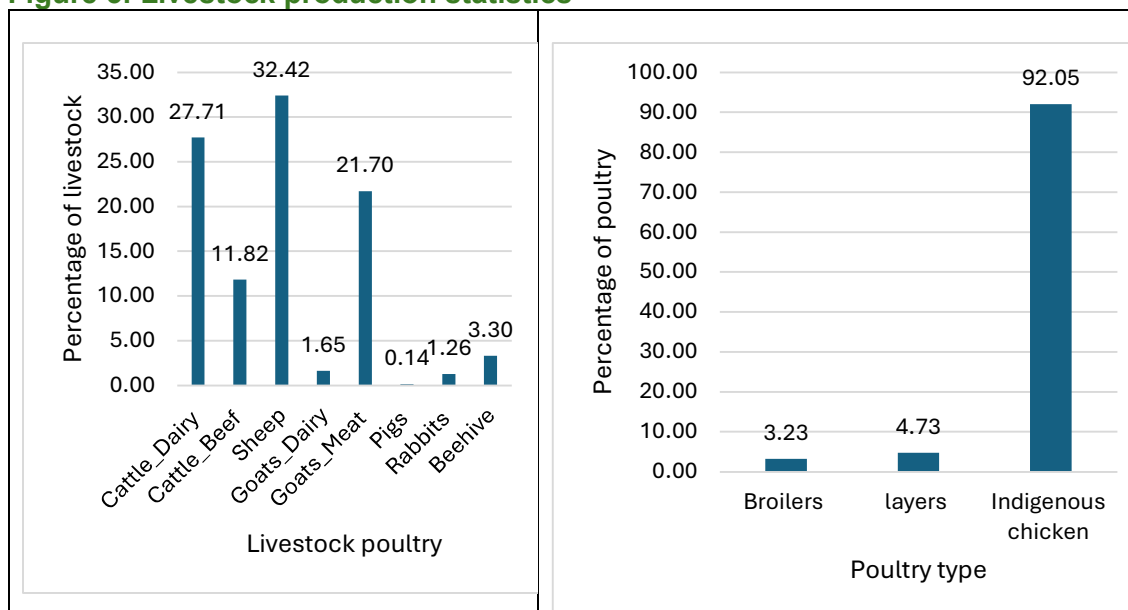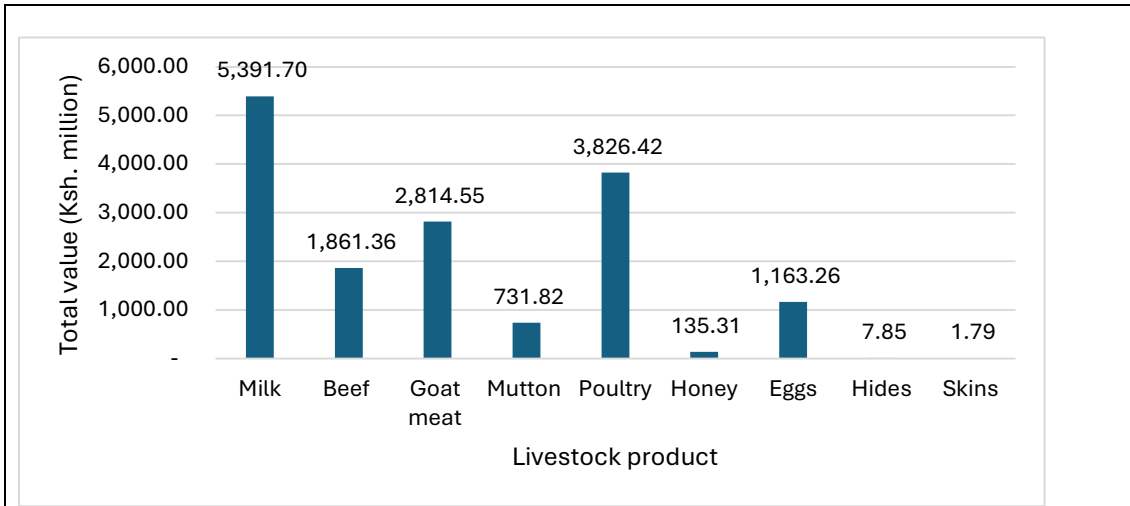
Data source: National Information Platform for Food and Nutrition (NIPFN)

Industry Sector

The average growth rate of the industry sector is 12.13 percent, which is above the national average of 10.58 percent (Figure 6).
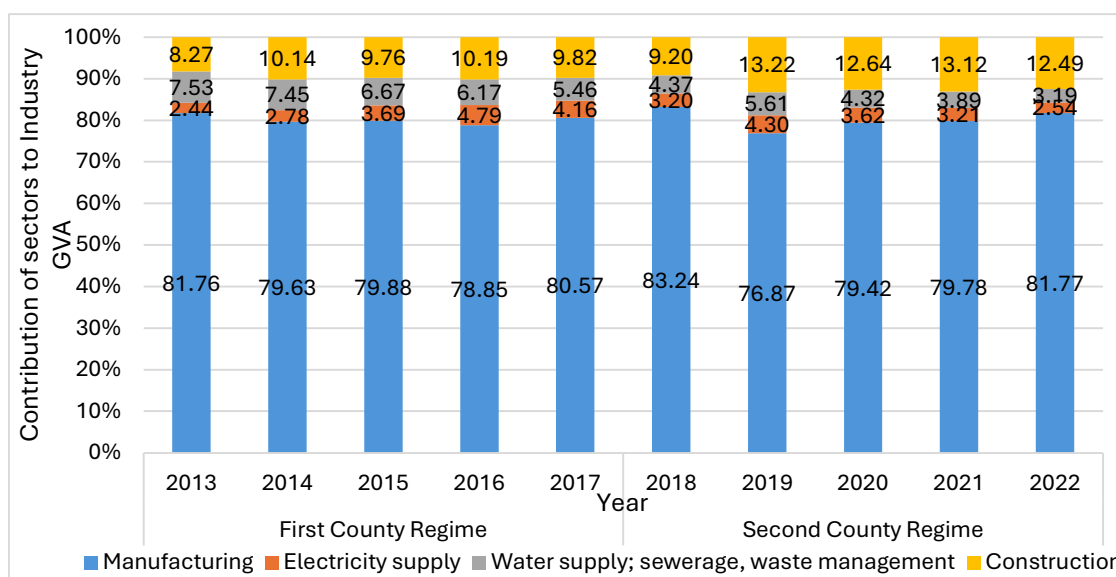
Figure 6 : Nakuru County industry GVA growth rate

Data source: KNBS 2023-Gross County Product

Manufacturing is another important sub-sector in Nandi County as it dominates the industry sector as shown in Figure 7.

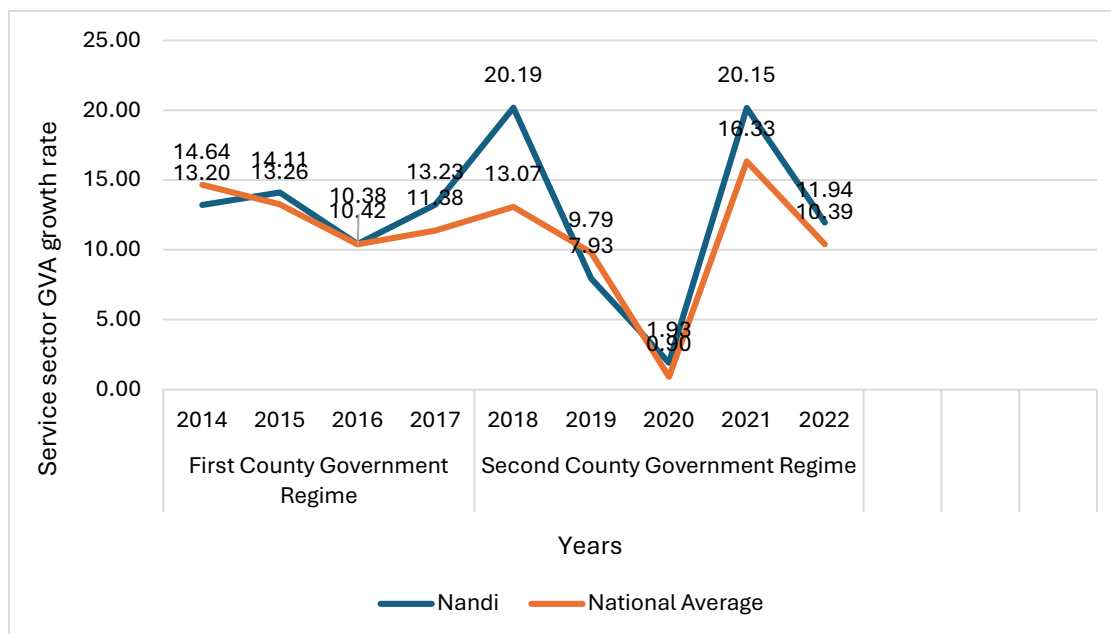**Figure 7: Contribution of industry sub-sectors to the industry GVA**

Data source: KNBS 2023-Gross County Product

Services Sector

The average service sector growth rate is 9.14 percent, which is below the national average of 11.13 percent as shown in Figure 8.

Figure 7: Nandi County services sector GVA growth rate

Data source: KNBS 2023-Gross County Product

The public administration and defence sub-sector, a non-market service, dominates the services sector with the highest contribution to service GVA at 19.12 percent (Figure 9). The Education sector is the second highest contributor to services GVA at 16.66 percent. The transportation and storage sub-sector is third at an average of 16.16 percent.

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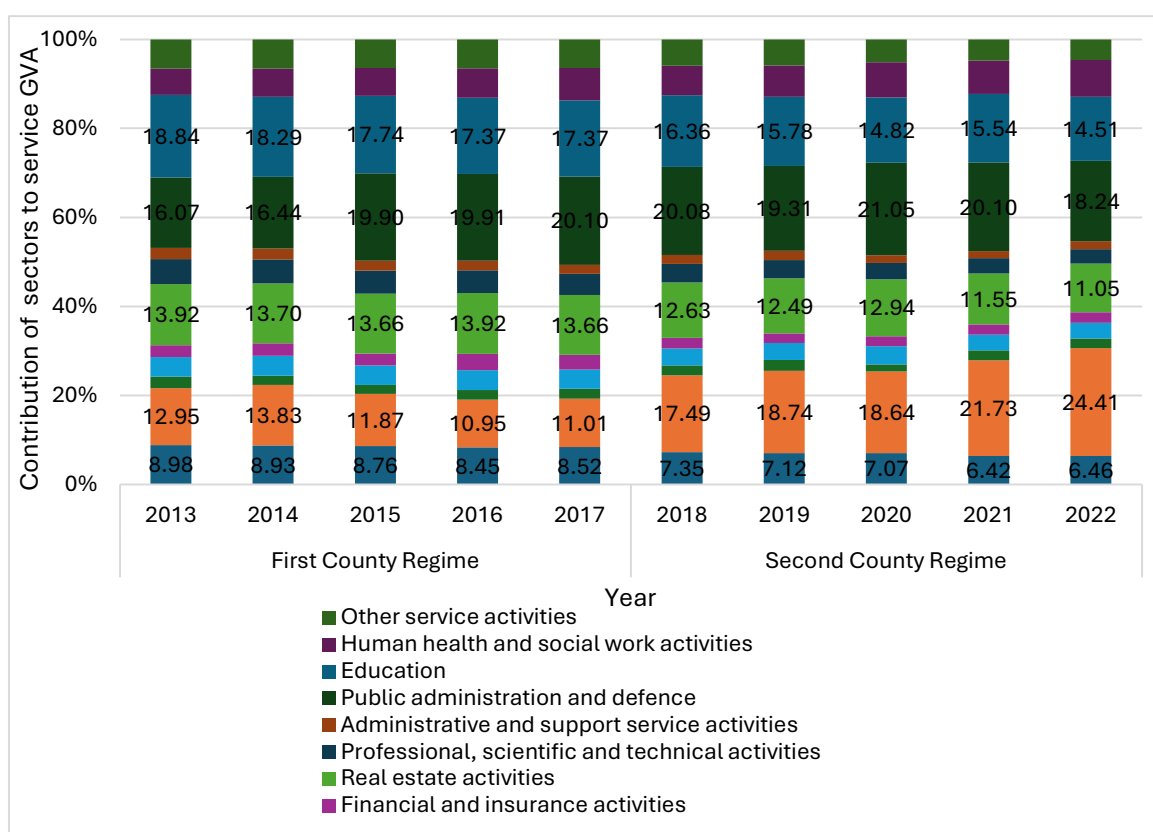
Data source: KNBS 2023-Gross County Product

Quantity and Quality of Labour Force

Nandi County has a total of 501,522 working-age population, about 56.63 percent of the county population (Table 1). Most of the working-age population is youthful (18-34 years) at 49.81 percent.

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

Working age population	Male	Female	Total	Percentage of total working age population (%)
15-17	35,455	34,381	69,836	13.92
18 –24	59,053	60,297	119,350	23.80
25-34	61,550	68,897	130,447	26.01
35-64	92,977	88,912	181,889	36.27
Total	249,035	252,487	501,522	

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

Most of the population in Nandi sub-counties are persons in the working age categories. Nandi Central has the highest percentage of persons of working age at 59.70 percent (Table 2).

Table 2: Sub-county land area 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	
Chesumei	164,129	12,474 (12.87)	23,571 (24.33)	25,572 (26.39)	35,271 (36.40)	96,888 (59.03)
Nandi Central	147,546	11,397 (13.36)	20,285 (23.78)	22,435 (26.30)	31,202 (36.57)	85,319 (57.83)
Nandi East	119,170	8,931 (12.96)	15,772 (22.88)	19,160 (27.79)	25,073 (36.37)	68,936 (57.85)
Nandi North	166,168	13,578 (14.81)	21,408 (23.36)	22,831 (24.91)	33,834 (36.92)	91,651 (55.16)
Nandi South	172,747	14,021 (14.61)	22,747 (23.71)	23,790 (24.80)	35,380 (36.88)	95,938 (55.54)
Tinderet	115,929	9,435 (15.03)	15,567 (24.79)	16,659 (26.53)	21,129 (33.65)	62,790 (54.16)

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

Nandi County had high performance in socioeconomic indicators that affect the quality of labour. However, there is a need to increase secondary school enrolment rates and reduce stunting (Table 3).

Table 3: Human capital indicators

Human capital indicators	County	National average
Literacy rate	91.90	78.41
Pre-primary net enrolment rate (2019)	78.34	67.51
Primary school net enrolment rate (2020)	95.00	77.72
Secondary school net enrolment rate (2020)	59.50	54.18
Average years of schooling (2014)	7.80	7.78
Percentage of children 12-23 months fully vaccinated (%)	96.30	74.97
Percentage of stunted children	15.1	19.75
Percentage of teenage pregnancy	10.50	15.79
Primary to secondary transition rates (2020)	86.60	86.13
Pupil-teacher ratio (primary school)	32.00	28.28
Food poverty headcount (%)	31.30	33.63
Child poverty headcount (%)	35.20	42.67

Source: KNBS (2022), Kenya Demographic and Health Survey - 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

Nandi County has higher than the national average for some essential infrastructure indicators. There is a need to increase electricity and internet connectivity, access to improved water, rural roads, financial inclusion, and adequate housing.

Table 4: Essential infrastructure and capital indicators

Essential infrastructure indicators	County	National average
Percentage of households with access to electricity (2019 Census	30.70	38.52
Distribution of Population using the Internet (2019 census)	17.10	18.69
Rural Access Index (2018	55.18	63.72
Access to improved sanitation (2018	71.00	59.04

Access to improved water (2018)	44.80	65.33
Financial inclusion level (2021)	79.30	81.01
The proportion of Primary Schools with Internet	23.90	27.65
Proportion of secondary schools with functional internet	29.00	35.13
Percentage of households by housing material composite-finished materials(adequate) (2019)	41.23	51.71
Percentage of Households using Bank usage (Overall)	35.20	38.18
Percentage of Households using Mobile Money)	77.60	78.58

Data sources: KRB 2018, KPHC 2019, FinAccess 2021, KIHBS 2015/16

County Employment Statistics

The employment-to-population ratio is at 65.53 percent. Most of those working are the non-youth population at 32.89 percent while youth at 31.83 percent. The percentage of the employed by gender is 40.59 for males and 42.19 for females. The unemployment rate is at 4.97 percent and slightly higher for the youth (18-34 years) at 3.30 percent and those between 35-64 years at 1.58 percent. The percentage of persons 5–17 years old working is 2.73 percent indicating that the county has low levels of child labour. The inactivity rates are higher for the youth category (15-24 years) at 25.14 per cent as they are pursuing schooling while it is low for the persons of prime age (25-64 years) at 4.01 per cent.

**Table 2: Nandi County employment statistics**

Employment statistics	Youth	Non-youth
Employment to population ratio (%)	31.83	32.89
Unemployment rate	3.30	1.58
Percentage of persons aged 5–17 years working	2.73	-
Inactivity rate	25.14	4.01

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

Sectoral Employment

The agriculture sector is the highest employer in Nandi County at 68.38 percent followed by the services sector at 23.92 percent (Figure 10). The industry sector is third at 7.70 percent.

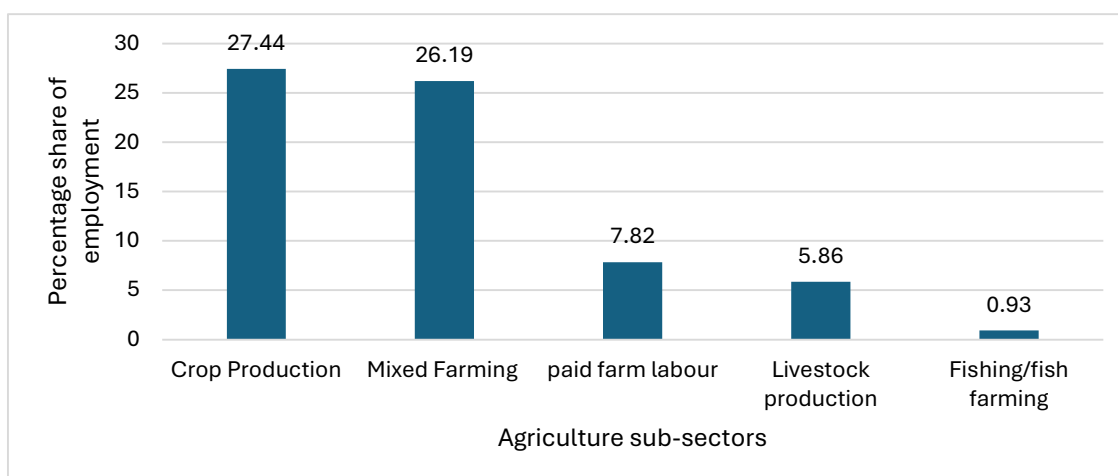**Figure 10: Percentage of persons employed in the broad sectors**
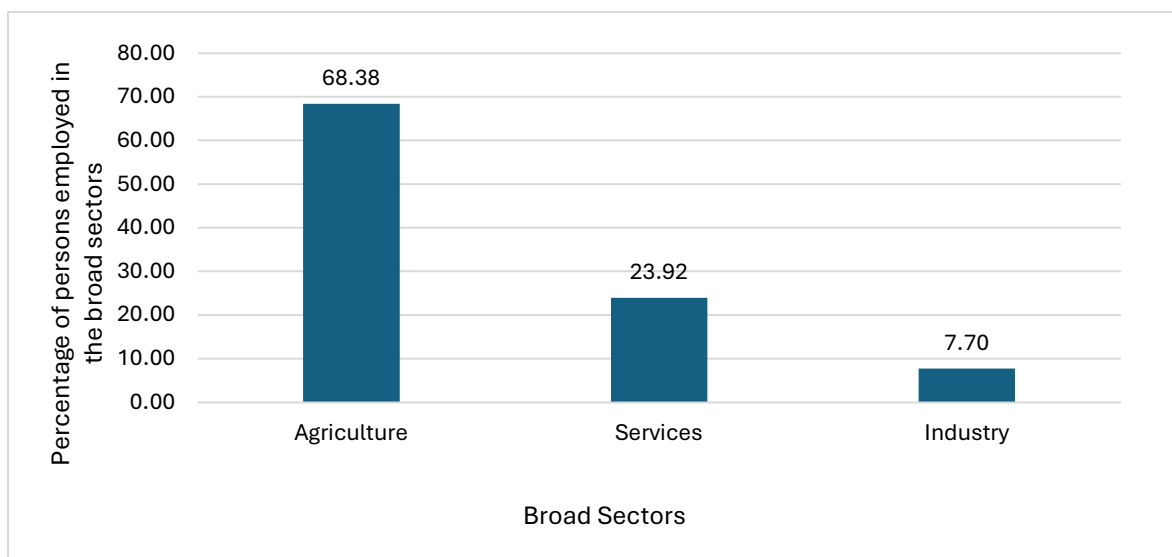
Data source: KNBS 2021- Kenya Continuous Household Survey

Agriculture Sector

In agriculture, the majority are practicing crop production as shown in Figure 11.

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

Data Source: KNBS 2021- Kenya Continuous Household Survey

Industry Sector

The majority of those working in the industry sectors are in the construction of buildings (Figure 12). Mining is mainly quarrying of stone and mining of other non-ferrous metal ores.

Figure 12: Percentage share of employment in the industry sectors
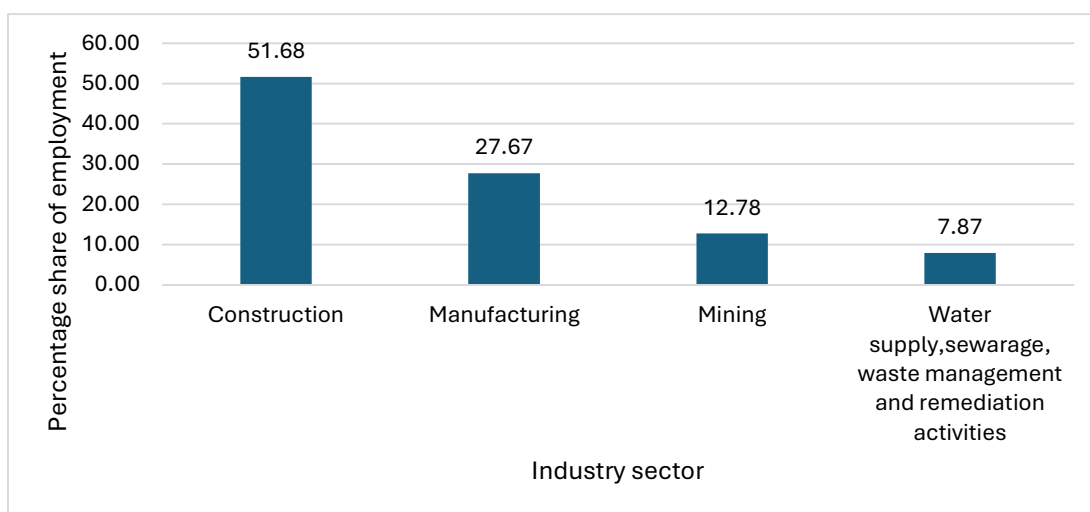
Data source: KNBS 2021- Kenya Continuous Household Survey

A disaggregation of employment in manufacturing shows that the majority of those employed in the sector, work in low-technology manufacturing sub-sectors such as agro-processing and repairs industries (Figure 13).

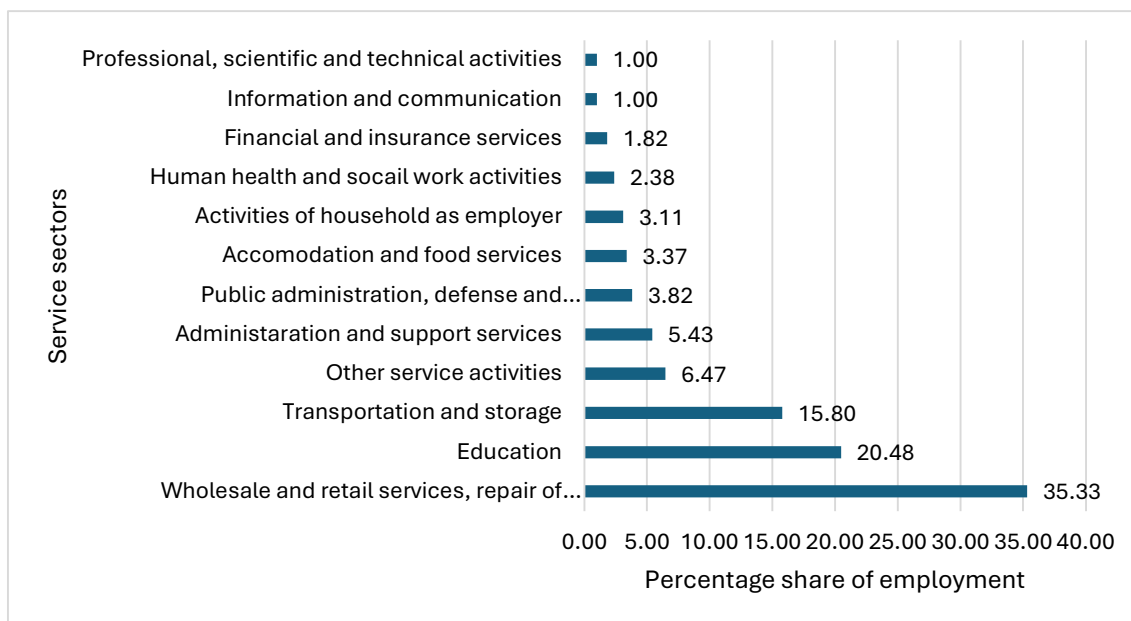**Figure 13: Percentage share of employment in manufacturing sub-sectors**
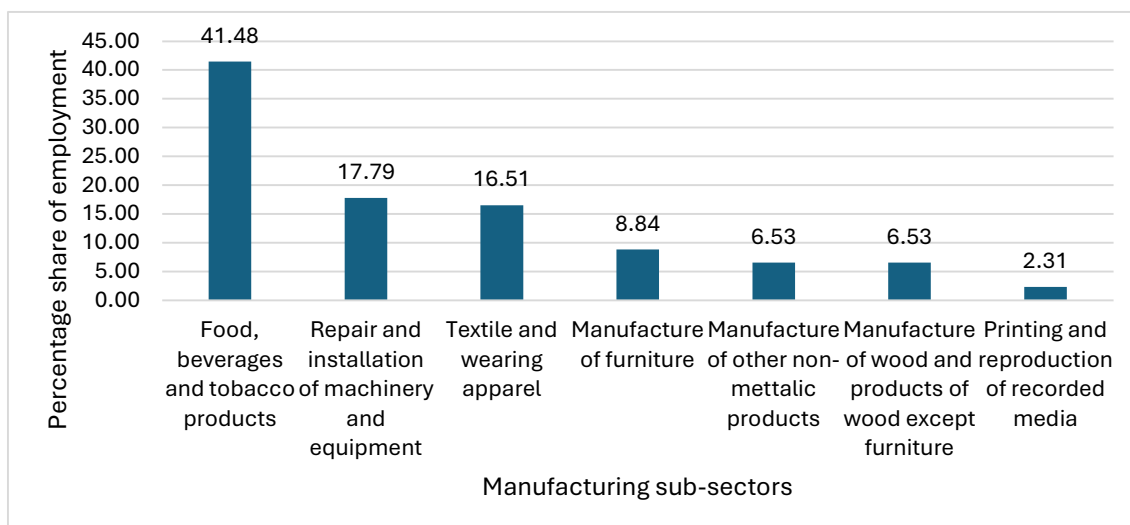
Data Source: KNBS 2021- Kenya Continuous Household Survey

Services Sector

The majority of those working in the services sector are in wholesale and retail trade, and repair of motor vehicles and motorcycles (Figure 14).
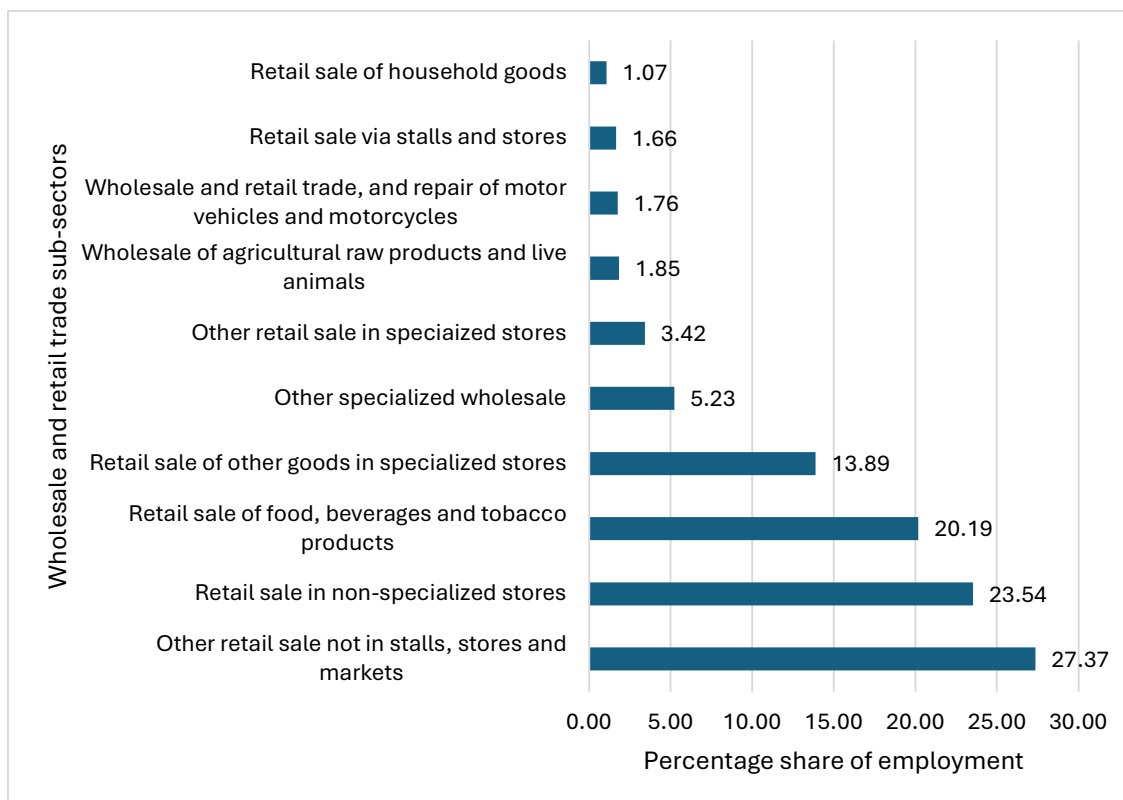
Figure 14: Percentage share of employment in the services sector

Data source: KNBS 2021- Kenya Continuous Household Survey

In the wholesale and retail trade, and repair of motor vehicles and motorcycles sector, the majority work in other retail not in stalls, stores, and markets (Figure 15).
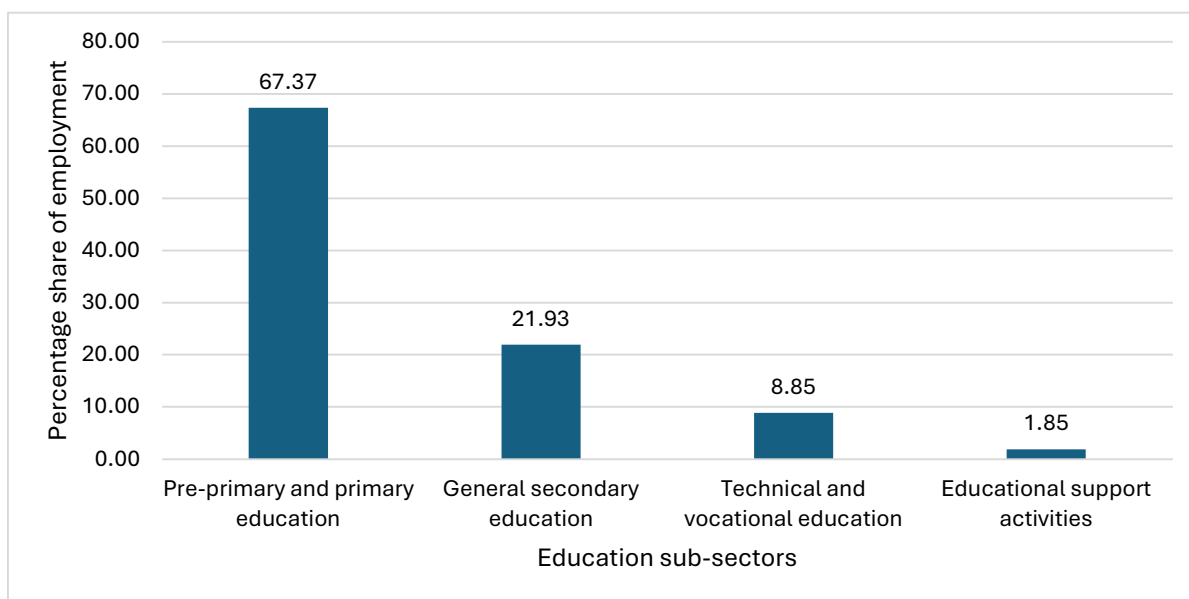
Figure 15: Percentage of persons employed in the wholesale and retail trade; repair of motor vehicle sub-sectors

Data Source: KNBS 2021- Kenya Continuous Household Survey

In the education sector, the majority of those employed are in pre-primary and primary education as shown in Figure 16.

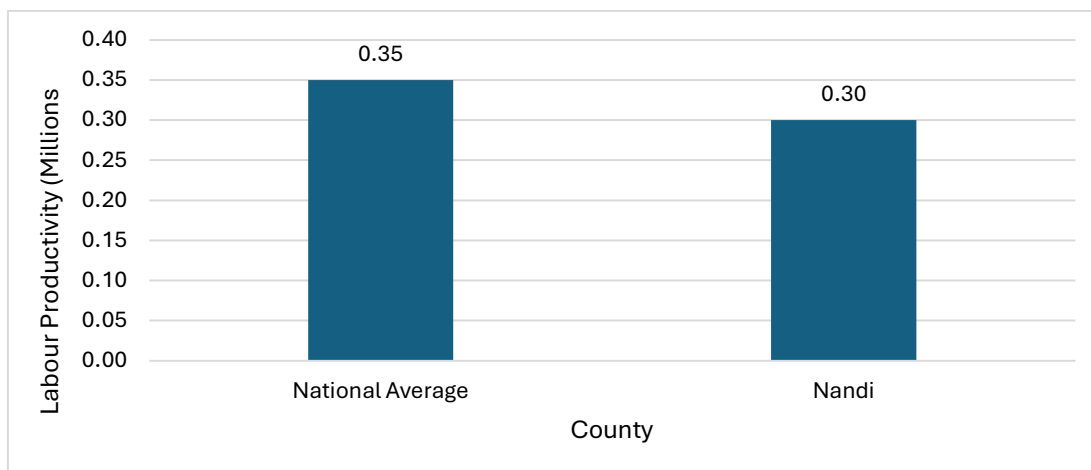**Figure 16: Percentage share of employment in education sub-sectors**

Data source: KNBS 2021- Kenya Continuous Household Survey

Labour Productivity

Labour productivity[1] for Nandi County is lower than the national average (Figure 17).

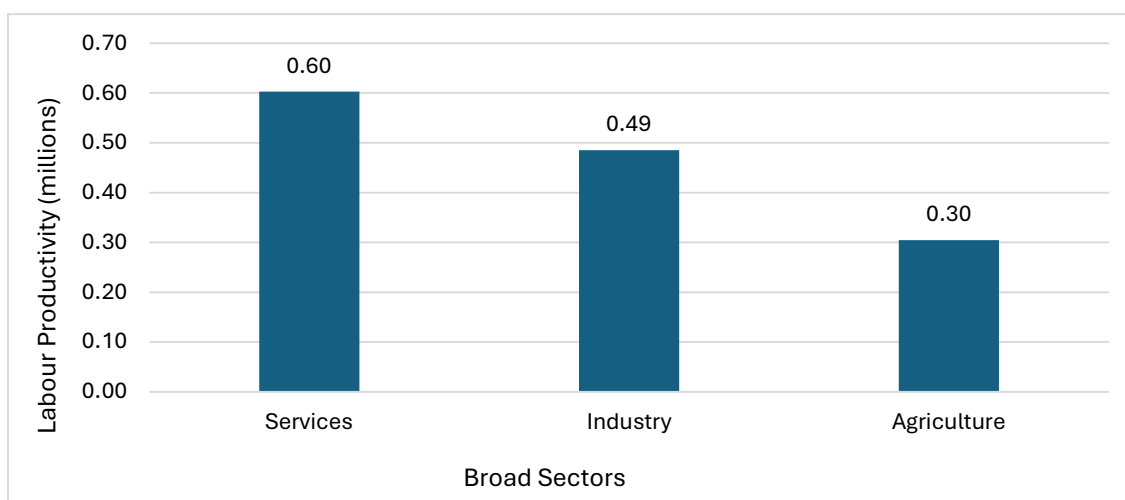**Figure 17: Labour productivity ratios (millions)**

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 while the agriculture sector had the lowest labour productivity (Figure 18).

---

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

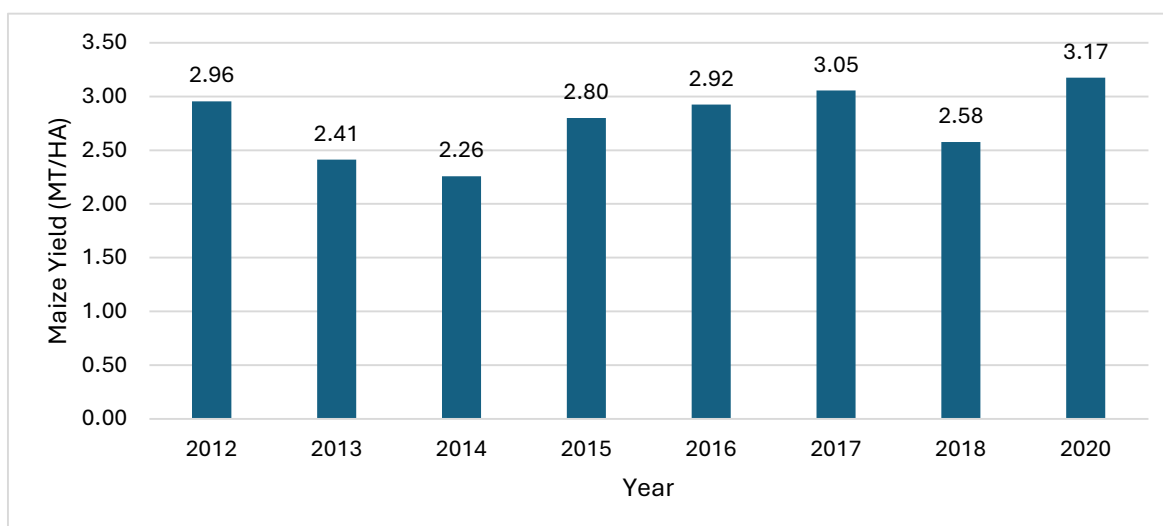**Figure 18: Labour productivity by sectors**

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

Agriculture Sector

Maize productivity as measured by the yield is moderate when compared to other non-ASAL counties at an average of 2.77 MT/HA. It has also been fluctuating over the years, the lowest being in 2014 and the highest in 2020 (Figure 19).
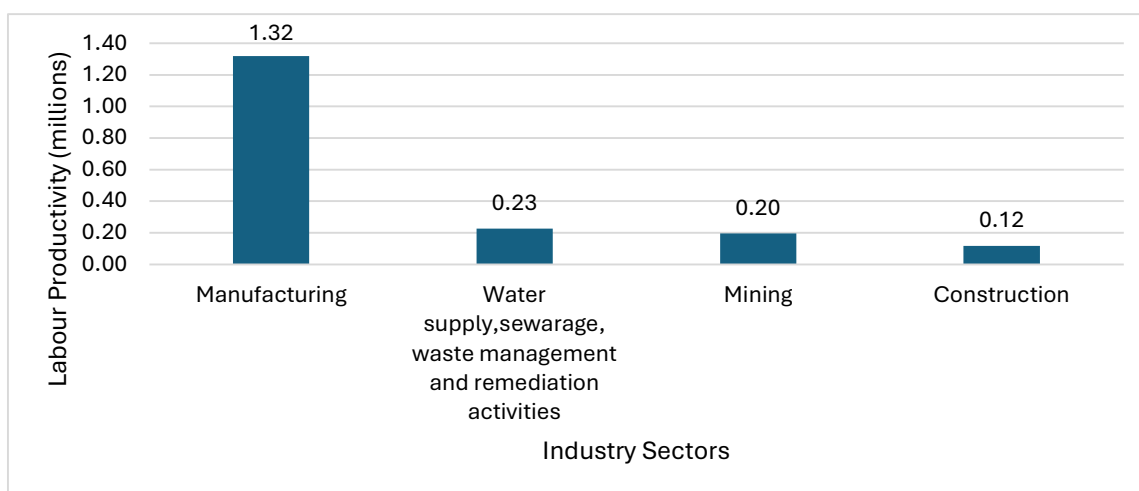
Figure 19: Maize yield (MT/HA)

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

Industry Sector

Manufacturing and water supply, sewerage, waste management, and remediation activities sectors had the highest labour productivity in the industry broad sector (Figure 20).

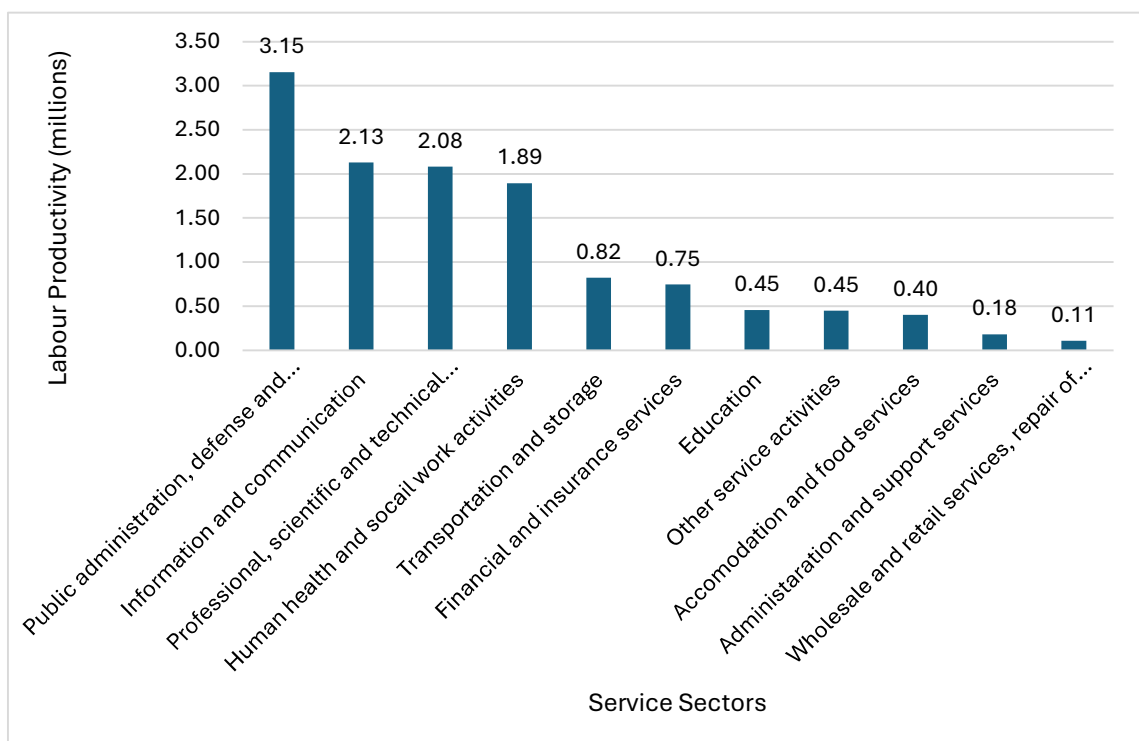**Figure 20: Labour productivity by industry sectors**

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

Services Sector

Public administration, defence, and compulsory social security sub-sector had relatively higher labour productivity when compared with other sub-sectors within the services sector (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 agriculture sector has the largest share of county gross value added. The county has a comparative advantage in crop production, dairy and poultry farming, and potential in leather. Manufacturing dominates the industry sector while the public administration and defence sub-sector dominate the services sector.

(ii) The indicators for quality of labour are within the national average. However, there is a need to increase secondary school enrolment rates and reduce stunting, child poverty, and food poverty.

(iii) Some of the essential infrastructure indicators are above the national average. There is a need to increase electricity and internet connectivity, access to improved water, rural roads, financial inclusion, and adequate housing.

(iv) The agriculture sector is the highest employer with the majority practicing crop production. The majority of those working in the industry sectors are in construction. Employment in manufacturing shows that the majority of those employed in the sector work in agro-processing and repair industries. The majority of those working in the service sector are in wholesale and retail trade, mainly in other retail not in stalls, stores, and markets which means the informal sector.

(v) Labour productivity is lower than the national average. The services sector has the highest productivity followed by the industry sector while the agriculture sector has the lowest labour productivity. There is potential for maize production. In industry, manufacturing has the highest productivity.

Policy Recommendations

(i) Transform agriculture to increase productivity. This includes developing the livestock value chain to integrate the small farmers into the dairy and leather value chains and building skills for farmers to uptake technologies that improve productivity. Further is to support emerging fish farming, apiculture, and poultry farming, and enhance rural access.

(ii) Encourage investments in manufacturing to support mining and the transformation of the agriculture sector by engaging in agro-processing and supporting the County Aggregation Industry Park to enhance the productivity of the MSMEs.

(iii) Secure quality of labour with nutritional programmes to reduce child poverty and stunting. Of priority should also be reducing teenage pregnancies through creating awareness and supporting teenage mothers to continue with education and encouraging secondary school enrolment to support upgrading skills development.

(iv) Create an enabling environment for private sector growth by investing in essential infrastructure to improve access to electricity and internet, housing, and improved water.

(v) For the services sector, providing appropriate market infrastructure to diversify services beyond non-market services.

Acknowledgment

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.