



Policy Brief

Thinking Policy Together

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Assessing Labour Productivity for Turkana County

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Overview of the County

Turkana County is a member of the Frontier Counties Development Council (FCDC). It is arid, experiencing 85-100 per cent aridity. Turkana County covers an area of 71597.8 km² and is the largest county in land mass. The county has seven Sub-Counties namely: Kibish, Loima, Turkana Central, Turkana East, Turkana North, Turkana South, and Turkana West.

Key Highlights

The productivity in Turkana County is characterised by the following:

- (i) The agriculture sector is shrinking as a share of gross value addition. The industry sector is small contributing less than 10 per cent of total GVA. Livestock farming is dominated by sheep and goat while fisheries are not fully exploited. Industry sector is dominated by construction while transport and storage services dominate the services sector.
- (ii) The performance of the indicators of quality of labour are below the national average. Significant interventions are required to enhance literacy rates, increase enrolment in all levels of schooling, reduce child poverty and stunting, and reduce teenage pregnancies. The essential infrastructure and capital require improved access to electricity, improved water and sanitation, financial inclusion, and internet connectivity.
- (iii) An elevated level of child labour implies children and teenagers are denied opportunity to attend school. The agriculture sector employs most of the workforce in livestock production while industry has the lowest with majority in manufacturing of textile and wearing apparel. In services sector wholesale and retail sector dominates with majority in retail sale in non-specialized area.
- (iv) Labour productivity is slightly lower than the national average. Services sector has the highest productivity while the agriculture sector has the lowest, but with potential to enhance maize yield. In industrial sector, the highest productivity is in construction sub-sector. In services sector, the public administration had the highest productivity.

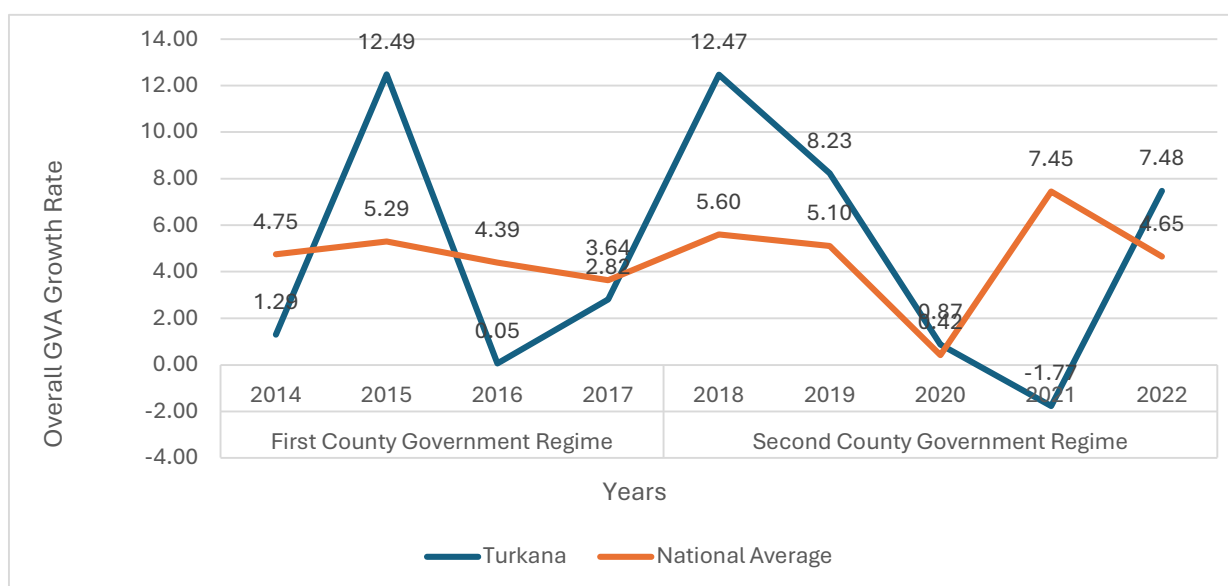
To enhance productivity:

- (i) Enhance agriculture productivity by building climate resilience in the livestock sub-sector, increasing uptake of weather-based insurance scheme for livestock production, and effectively utilizing the information from the drought early warning systems.
- (ii) Enhance livestock farming through integration in the leather, dairy, apiculture, and fish value chain.
- (iii) Market the tourist sites in the county to encourage local and international tourism and incentivize players in the hotel and accommodation to invest in tourist facilities and leveraging on cultural tourism.
- (iv) Create an enabling environment to attract investment by providing the essential infrastructure to enhance access to electricity, improve water and sanitation, financial inclusion, and internet connectivity.
- (v) Encourage participation in the Adult and Continuing Education programme and support programmes being implemented by NACONEK in the county such as mobile schools, school feeding programmes and low-cost boarding schools.

Turkana County Economic Performance

Turkana County contributes on average 1.0 per cent of the National Gross Value added with an average GVA of Ksh. 76,1311 million. The GVA per capita for Turkana County is Ksh. 82,130 with average population growth of 2.6 per cent and overall poverty levels at 77.7 per cent. Turkana County has shown a steady growth in GVA with an average growth rate of 4.88 per cent from 2013-2022 which is higher than the national average growth of 4.37 per cent. The highest growth rate was in 2015 and lowest in 2021 as shown in Figure 1.

Figure 1: Turkana County GVA growth rate

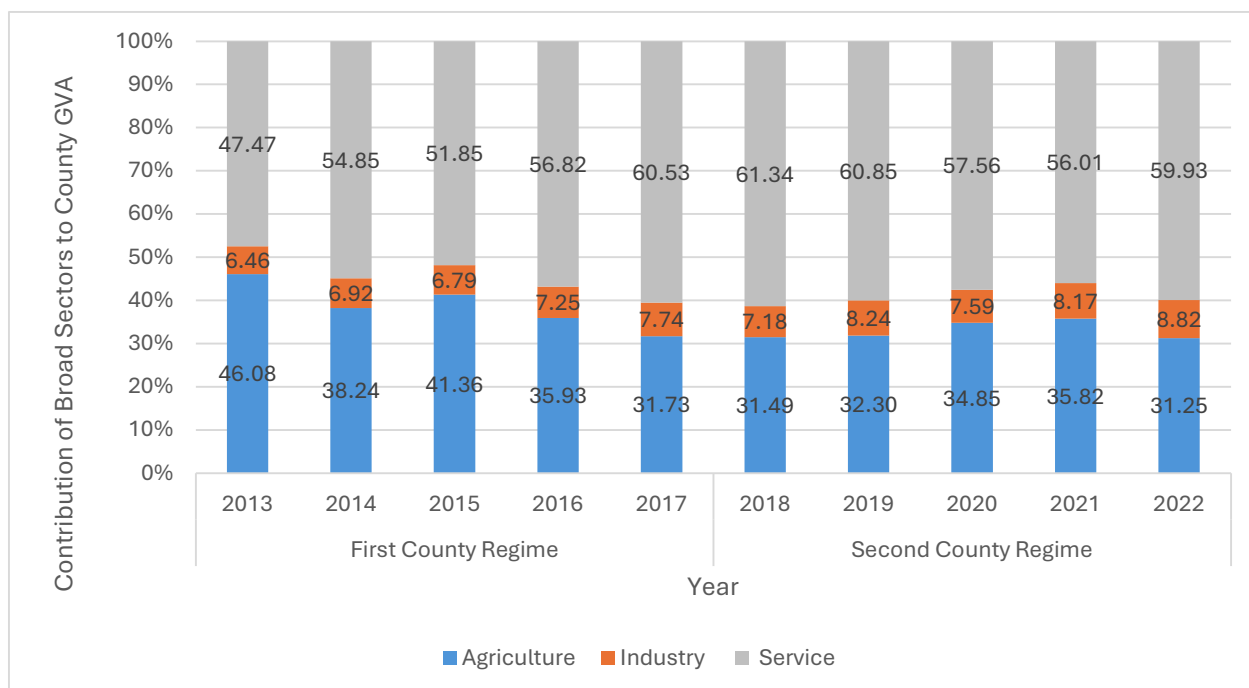


Data Source: KNBS 2023-Gross County Product

Sectoral Analysis of GVA

The service sector is dominant in Turkana County with an average contribution to GVA of 56.72 per cent. The agriculture sector is second, contributing an average of 35.90 per cent to the GVA while industry contributes about 7.52 per cent as shown in Figure 2.

Figure 2: Contribution of broad sectors to GVA

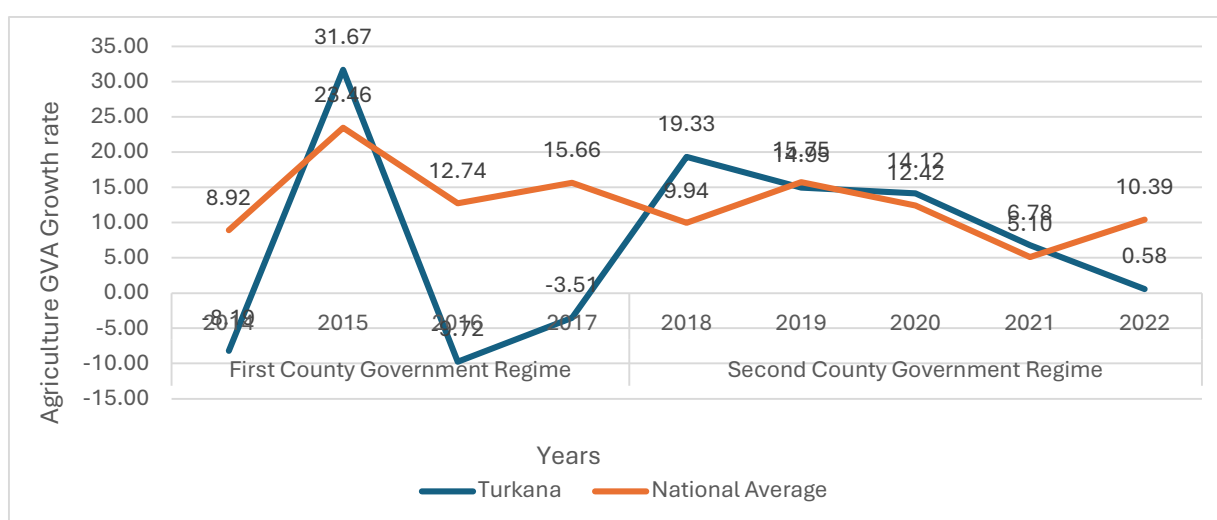


Data Source: KNBS 2023-Gross County Product

Agriculture Sector

The average Agriculture GVA growth rate (2013-2022) for Turkana County is 7.33 per cent, below the national average of 12.71 per cent as shown in Figure 3.

Figure 3: Turkana County agriculture GVA growth rate

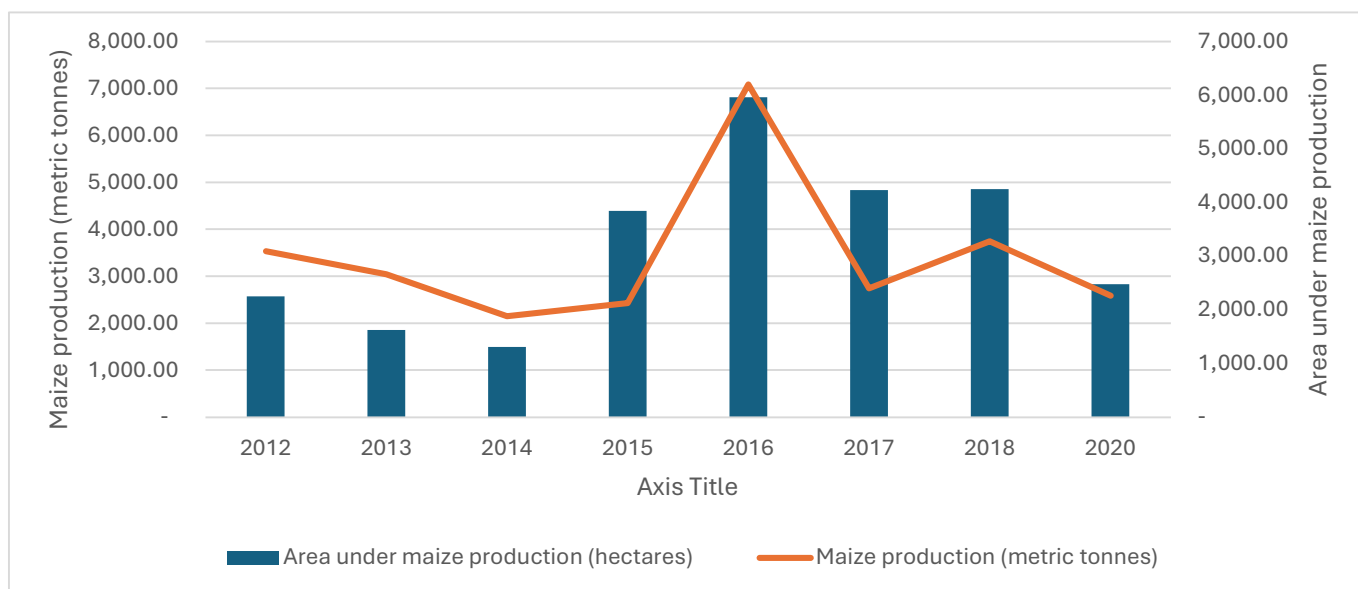


Data Source: KNBS 2023-Gross County Product

Turkana is endowed with fisheries resources. It partly hosts the largest freshwater lake Turkana which spans between the county and Marsabit County. However, the fisheries potential is still under exploited. In 2021, the fish captured was 15,644 metric tonnes, far below 94,349 metric tonnes captured in Lake Victoria.

The hectareage of maize harvested has fluctuated in Turkana County which subsequently affected maize production. A significant increase in maize production and hectareage was experienced as shown in Figure 4.

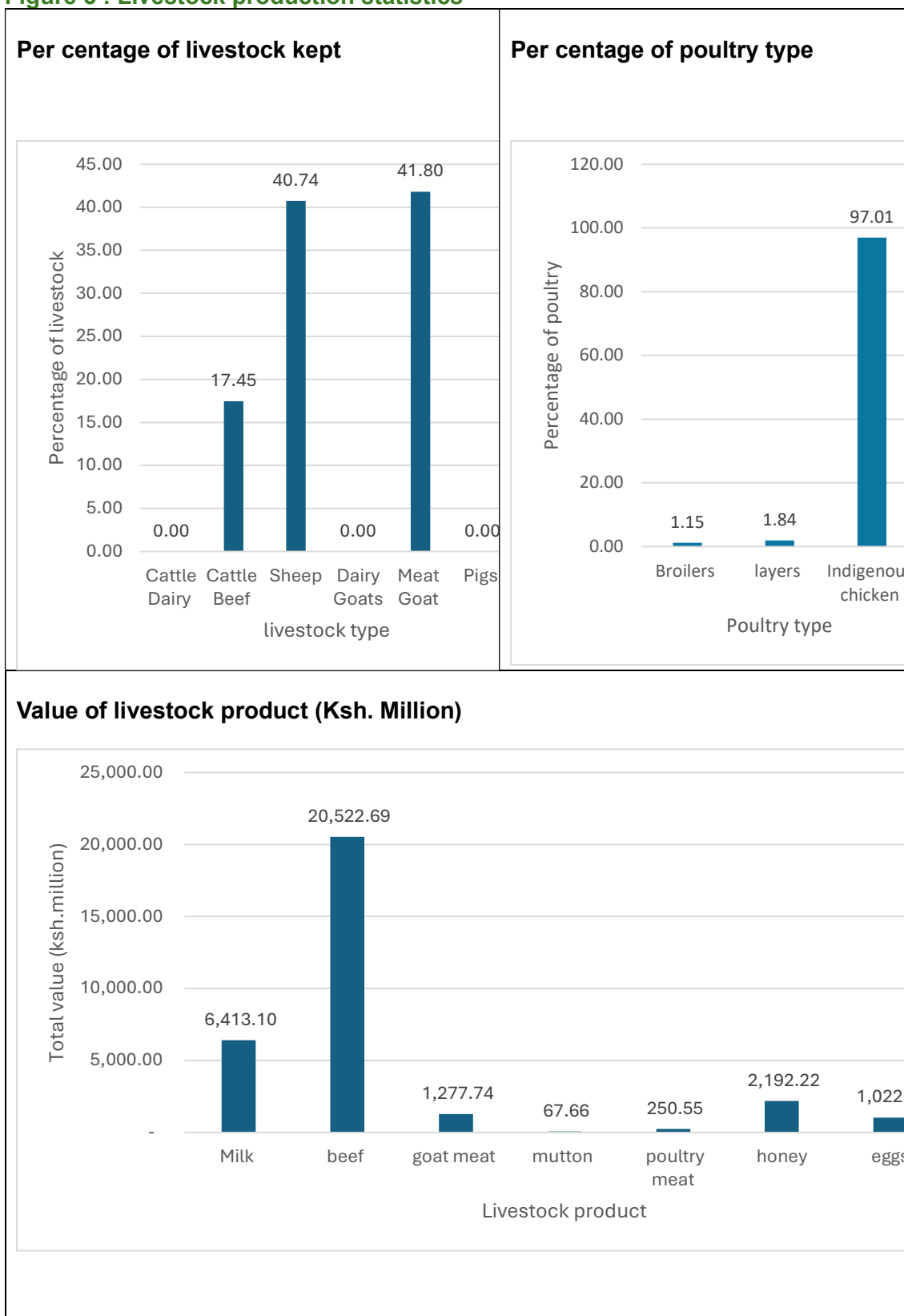
Figure 4: Maize production and area of maize harvested



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

Turkana county has a comparative advantage in livestock production, the county has the highest number of beef cattle, sheep, and meat goats in the country. Meat goats and sheep are the most popular livestock kept, although the number of poultry farming is low dominated by indigenous chicken. Milk and beef, products of cattle farming have the highest value in the county. Although Turkana County has significant livestock resources there are no marketed value of hides and skins, as livestock production is yet to be fully integrated into the leather value chain. Additionally, climate change through frequent and severe droughts is inhibiting the realization of full potential in livestock production (Figure 5).

Figure 5 : Livestock production statistics

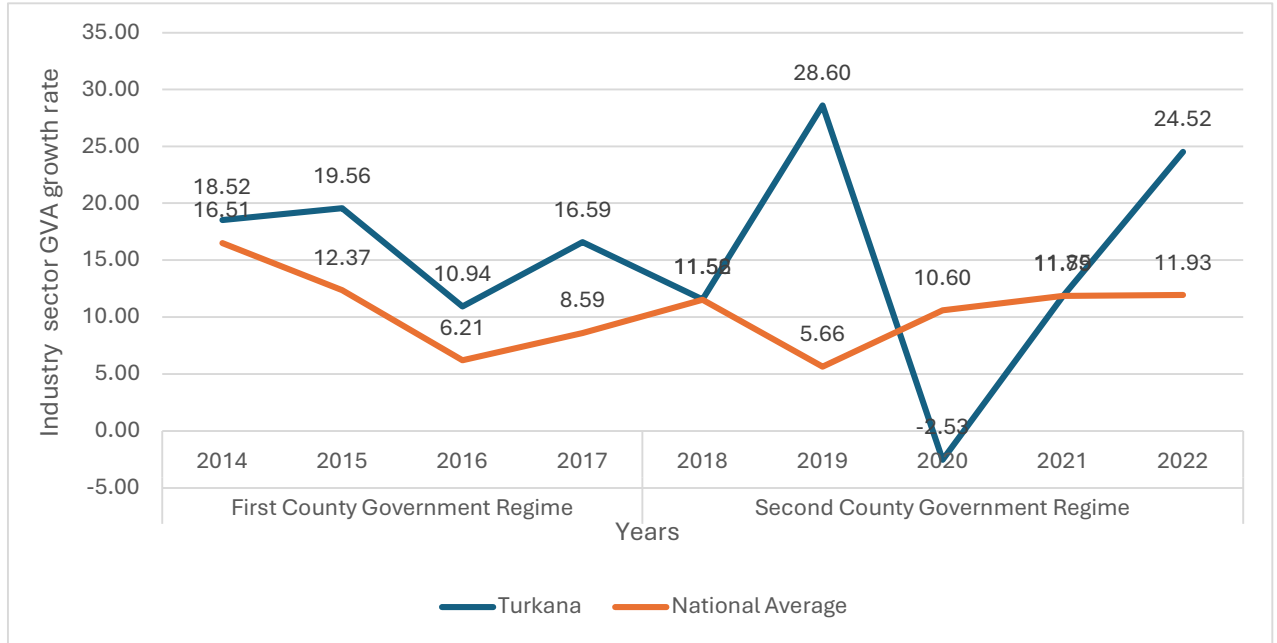


Data source: National Information Platform for Food and Nutrition (NIPFN)

Industry Sector

The average growth rate for industry sector is 15.51 per cent which is above the national average of 10.58 per cent as shown in Figure 6.

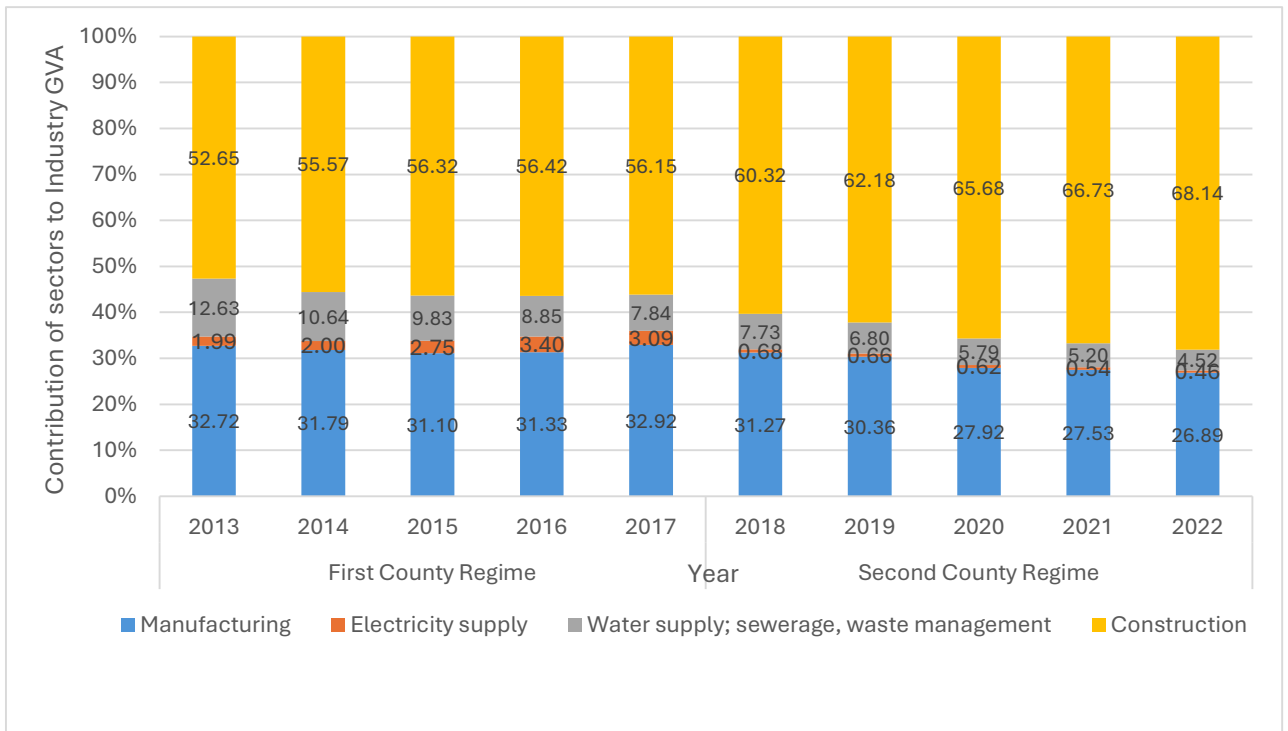
Figure 6: Turkana County industry GVA growth rate



Data Source: KNBS 2023-Gross County Product

Construction dominates the industry sector as shown in Figure 7. This is attributed to increased urbanization and investments in essential infrastructure which have been historically lower in these counties. Devolution has also played a crucial role in infrastructural developments through allocation of resources to county roads and establishment of county headquarters.

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

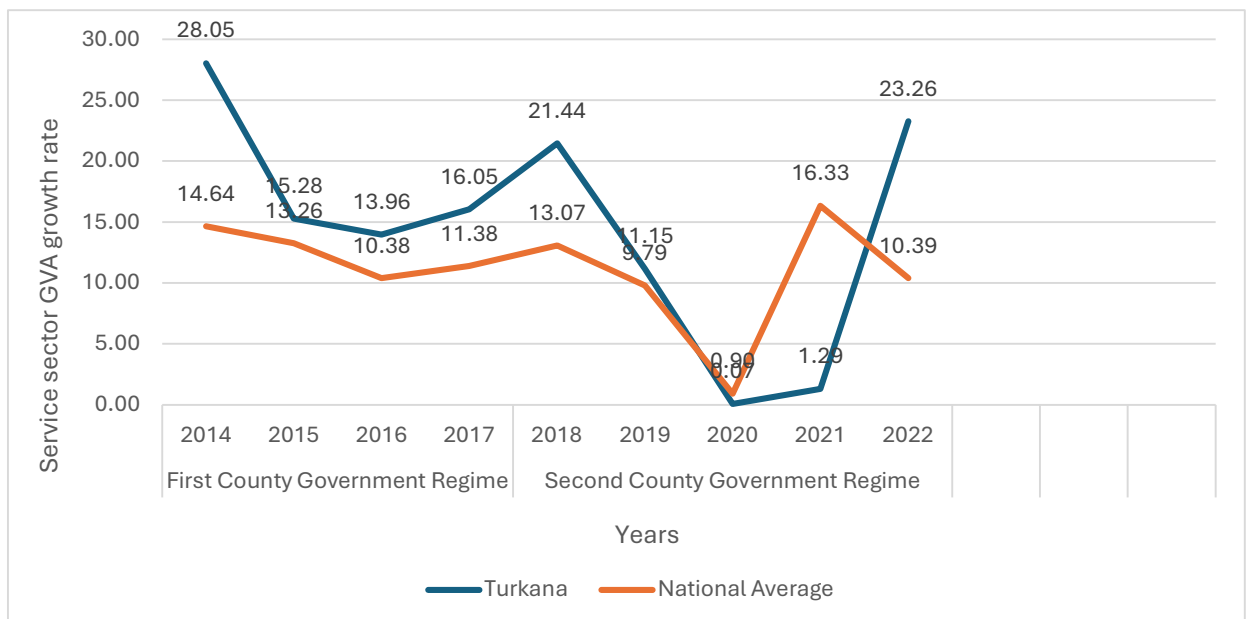


Data Source: KNBS 2023-Gross County Product

Services Sector

The average growth rate services sector is 11.93 per cent, which is above the national average of 11.13 per cent as shown in Figure 8.

Figure 8: Turkana County services sector GVA growth rate

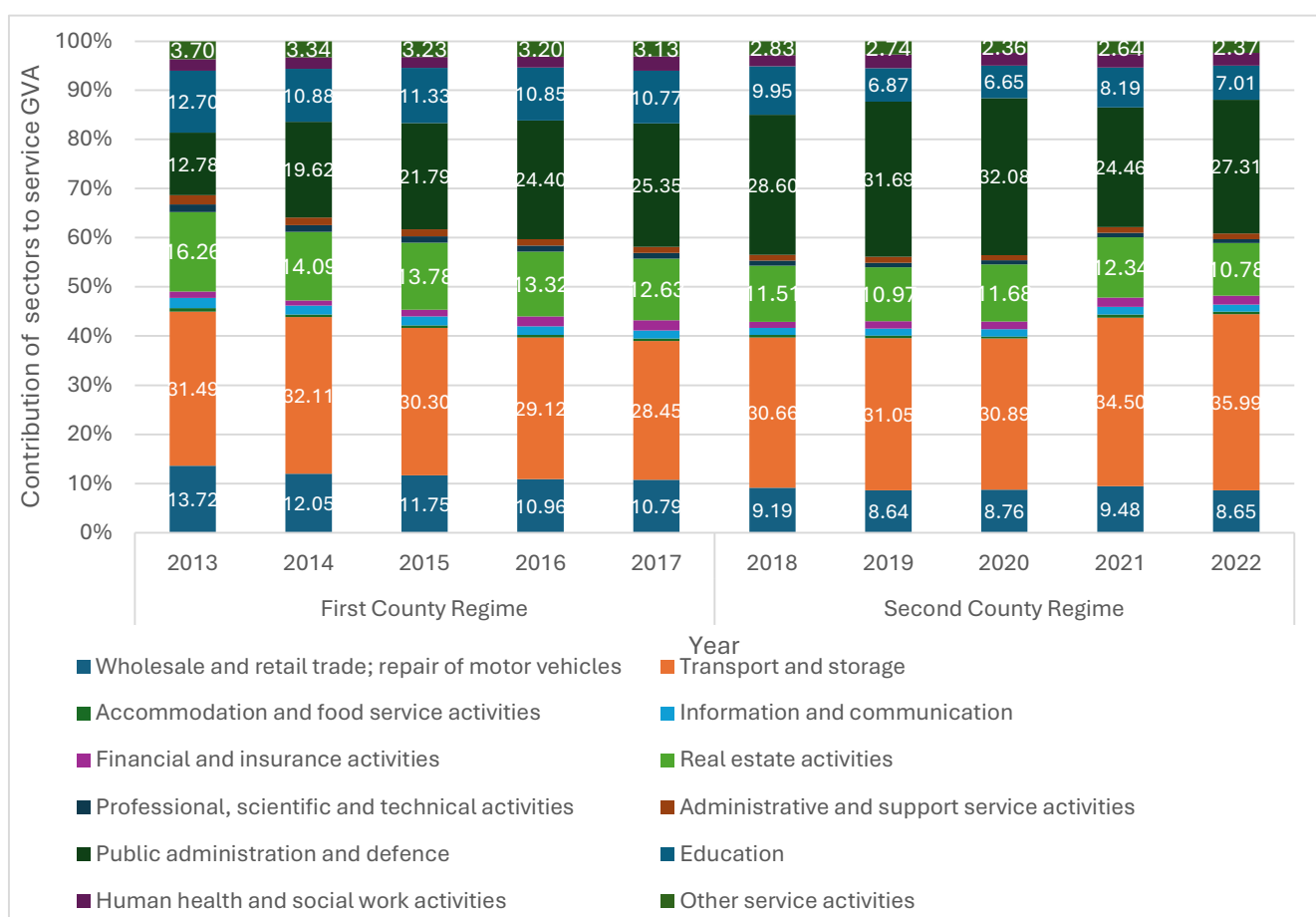


Data Source: KNBS 2023-Gross County Product

The transport and storage sub-sector dominates the services sector with the highest contribution to services sector GVA at 31.46 per cent. The public administration and defence sub-sector is the second highest contributor to services sector GVA at 24.81 per cent. The real estate sub-sector is third at an average of 12.74 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 extremely low contributing between 2-3 per cent to services GVA. Turkana County has 6 national reserves/parks namely South Turkana Game Reserve, Central Island National Park and Lotikipi National Game Reserve, South Island National Park, Sibiloi National Park. It also hosts the world’s largest desert lake.

Figure 9: Contribution of sub-sectors to services sector GVA



Data Source: KNBS 2023-Gross County Product

Quantity and Quality of Labour Force for Turkana County

Turkana County has a total of 484,916 working-age population, which is about 52.31 per cent of the county population. Most of the working-age population is youthful (18-34 years) at 55.75 per cent as shown in Table 1.

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

Working age population	Male	Female	Total	Per centage of total working age population (%)
15-17	43,327	33,353	76,680	15.81
18 –24	74,579	62,654	137,233	28.30
25-34	66,800	66,312	133,112	27.45
35-64	68,001	69,890	137,891	28.44
Total	252,707	232,209	484,916	

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

Most of the population in Turkana sub-counties are persons in the working age categories. Turkana East has the highest per centage of working-age persons at 55.85 per cent as observed 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 per centage of the total sub-county population
		15-17	18 –24	25 –34	35-64	
Kibish	36,768	3,091 (16.75)	5,557 (30.11)	4,907 (26.59)	4,900 (26.55)	18,455 (50.19)
Loima	107,794	8,186 (15.21)	13,697 (25.46)	15,485 (28.78)	16,439 (30.55)	53,807 (49.92)
Turkana Central	185,305	13,952 (14.58)	26,606 (27.80)	27,234 (28.46)	27,900 (29.16)	95,692 (51.64)
Turkana East	138,514	13,654 (17.65)	24,074 (31.12)	19,577 (25.31)	20,049 (25.92)	77,354 (55.85)
Turkana North	65,218	4,570 (14.63)	7,738 (24.78)	8,932 (28.60)	9,988 (31.98)	31,228 (47.88)
Turkana South	153,731	13,602 (17.13)	21,824 (27.49)	20,698 (26.07)	23,275 (29.31)	79,399 (51.65)
Turkana West	239,625	19,625 (15.22)	37,737 (29.26)	36,279 (28.13)	35,340 (27.40)	128,981 (53.83)

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

In Turkana County majority of the socioeconomic indicators that affect the quality of labour have performed lower than the national average as observed in Table 3. Interventions are required to improve literacy rates and health indicators that will improve the quality of labour.

Table 3: Human capital indicators

Human capital indicators	County	National average
Literacy rate	39.60	78.41
Pre-primary net enrolment rate (2019)	27.66	67.51
Primary school net enrolment rate (2020)	53.00	77.72
Secondary school net enrolment rate (2020)	16.70	54.18
Average years of schooling (2014)	6.70	7.78
Per centage of children 12-23 months fully vaccinated (%)	61.80	74.97
Per centage of stunted children	23.00	19.75
Per centage of teenage pregnancy	18.50	15.79
Primary to secondary transition rates (2020)	82.30	86.13
Pupil-teacher ratio (primary school)	45.00	28.28
Food poverty head count (%)	63.40	33.63
Child poverty head count (%)	78.20	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

For Turkana County majority of the essential infrastructure and capital indicators that support production of county output performed lower than the national averages as shown in Table 4. There is need for interventions to improve the quality and quantity of essential infrastructure to enable the county to exploit latent resources.

Table 4: Essential infrastructure and other resources indicators

Essential infrastructure Indicators	County	National average
Per centage of households with access to electricity (2019 census)	8.60	38.52
Distribution of population using the Internet (2019 census)	6.90	18.69
Rural Access Index (2018)	15.82	63.72
Access to improved sanitation (2018)	32.00	59.04
Access to improved water (2018)	63.30	65.33
Financial inclusion level (2021)	60.30	81.01
The proportion of primary schools with internet	31.15	27.65
Proportion of secondary schools with functional internet	50.80	35.13
Per centage of households by housing material composite-finished materials(adequate) (2019)	18.51	51.71
Per centage of households using bank usage (overall)	24.50	38.18
Per centage of households using mobile money	58.10	78.58

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

County Employment Statistics

Employment to population ratio at 44.79 per cent. Most of those working is the youthful population (18-34 years) at about 24.19 per cent. There is little disparity in employment by gender as per centage of the male employed is 36.33 per cent while female is at 34.34 per cent. The unemployment rate is high at 29.02 per cent with unemployment being slightly higher for the youth (18-34 years) at 17.11 per cent and those between 35-64 years at 8.36 per cent as indicated in Table 5.

There is a high percentage of persons 5–17 years old working at 38.42 per cent. The cultural practices may explain this as children and teenagers in pastoral communities play a key role in livestock production grazing the livestock. Although this is critical in helping them attain indigenous knowledge that is critical for the sustenance of pastoralism it is at the expense of early attainment of formal skills that are needed for alternative livelihoods and industrial transformation of counties. Climate change through frequent drought that force communities to migrate in search of resources could also be contributing. Incidences of insecurity which disrupt learning activities is also a cause of the high out of school children who are engaged in economic activities.

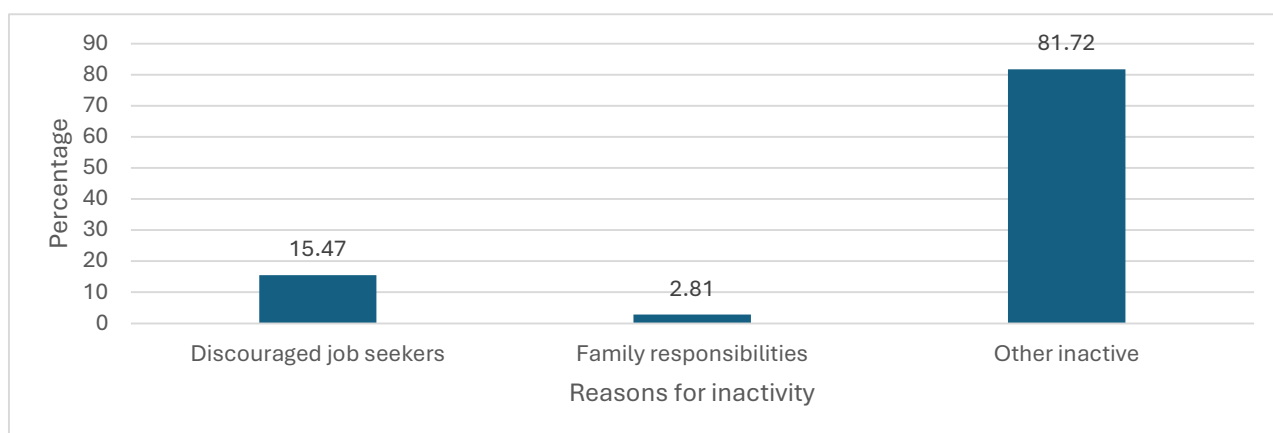
Inactivity rate for the youth category is 15.44 per cent while for the non-youth is 9.9 per cent. The higher inactivity rate for persons of prime age is of concern as it indicates lower labour utilization. The high number of persons inactivity including discouraged jobseekers is of concern as it indicates low labour utilization.

Table 5: Turkana County employment statistics

Employment statistics	Youth	Non youth
Employment to population ratio (%)	24.19	15.00
Unemployment rate	17.11	8.36
Per centage of persons 5–17 years old working	38.42	-
Inactivity rate	15.44	9.90

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

Figure 10: Reasons for inactivity

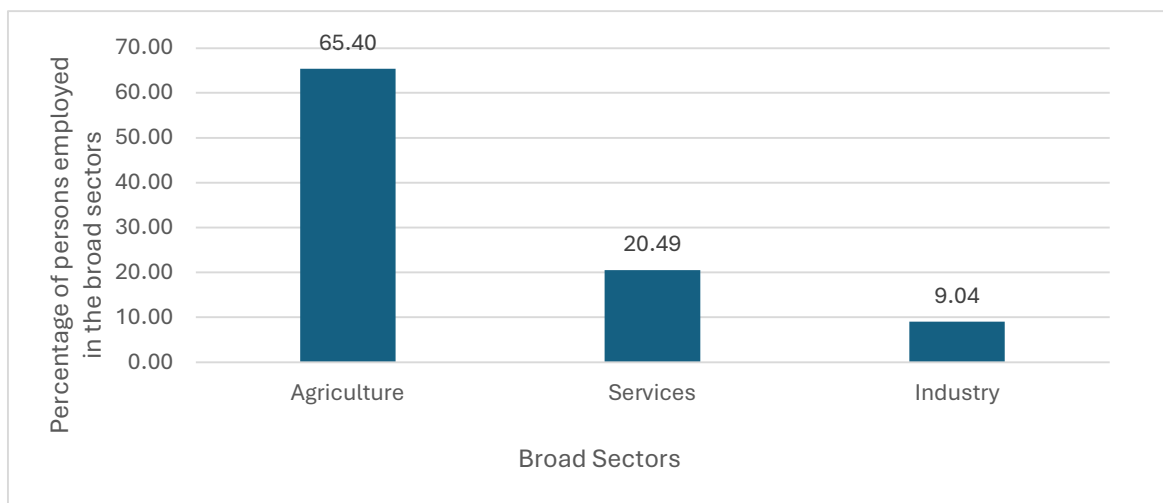


Data Source: KNBS 2021- Kenya Continuous Household Survey

Sectoral Employment

The agriculture sector is the highest employer in Turkana County at 65.40 per cent followed by the services sector at 20.49 per cent. The industry sector is third at 9.04 per cent as shown in Figure 11.

Figure 11: Per centage of persons employed in the broad sectors

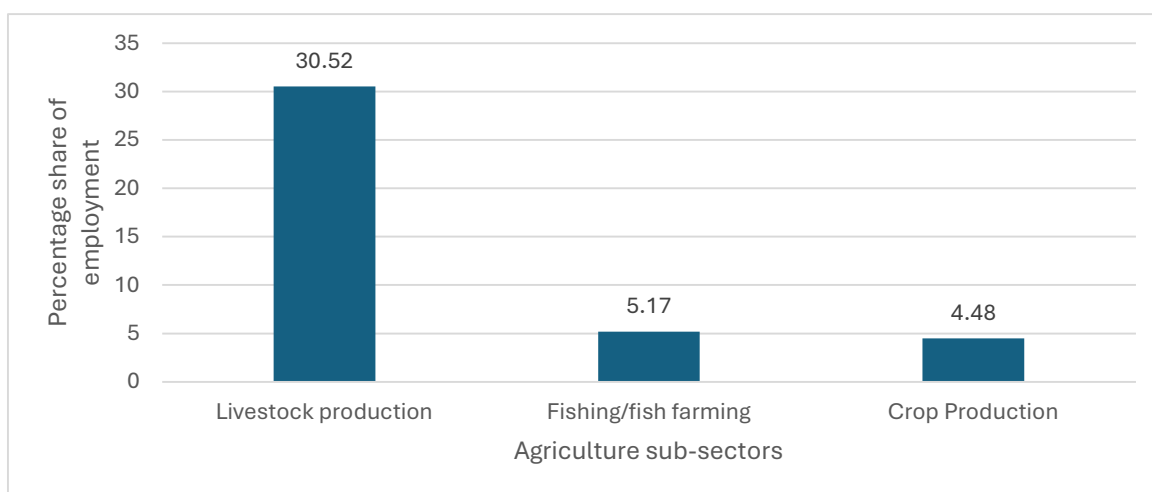


Data Source: KNBS 2021- Kenya Continuous Household Survey

Agriculture Sector Employment

Livestock production dominates employment in the agriculture sector. This reflects the comparative advantage the county has in livestock production (Figure 12).

Figure 12: Per centage share of employment in agriculture sub-sectors

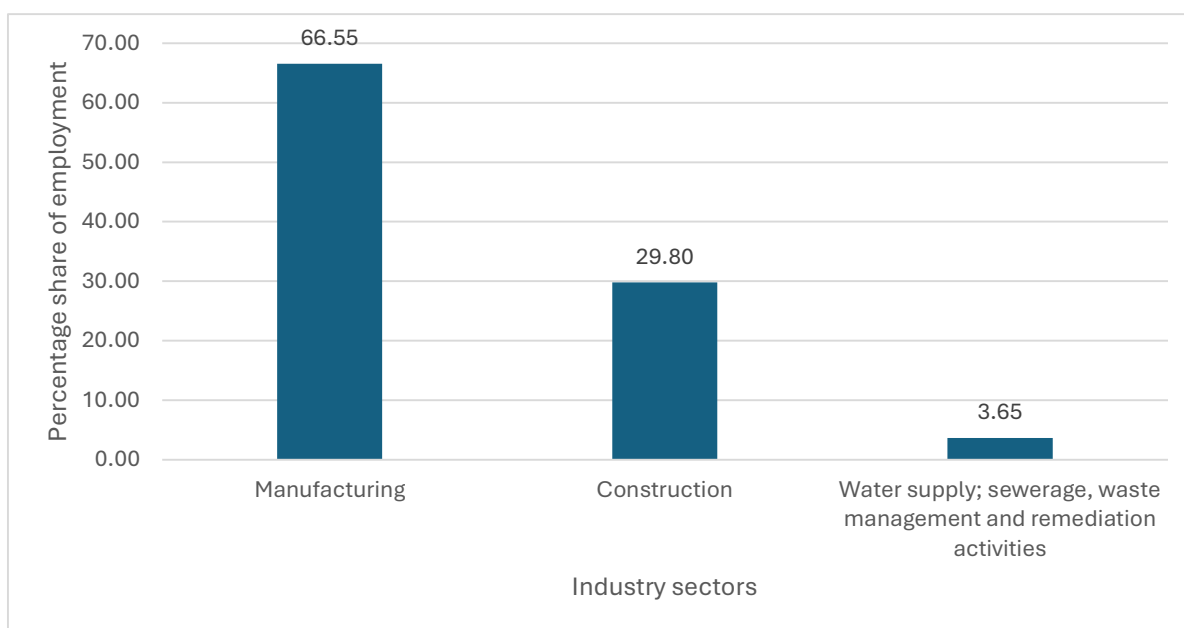


Data Source: KNBS 2021- Kenya Continuous Household Survey

Industry Sector Employment

The majority of those working in the industry sector are in manufacturing as observed in Figure 13.

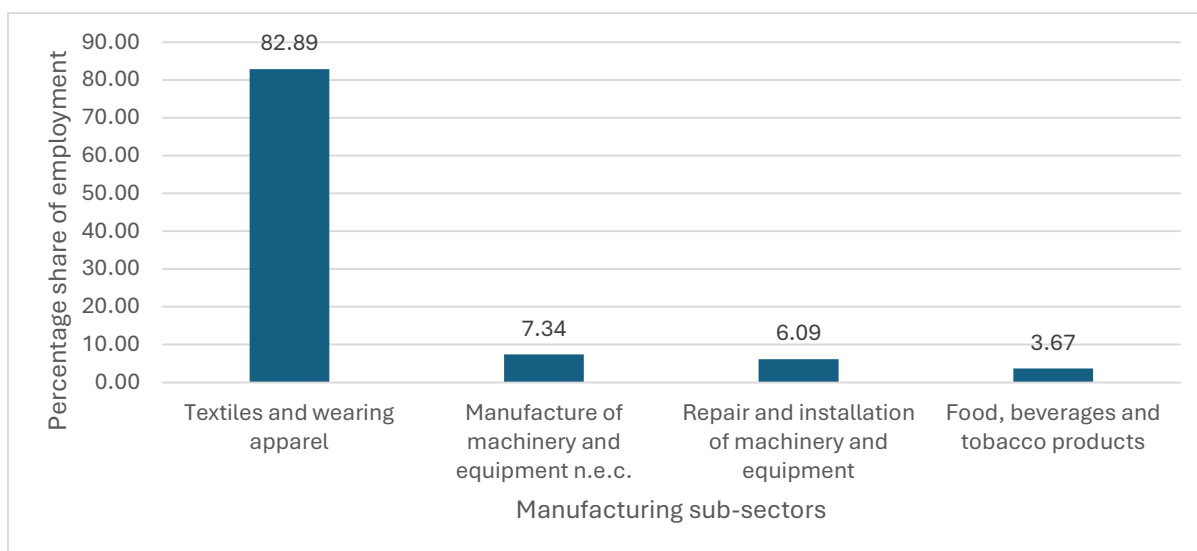
Figure 13: Per centage share of employment in the industry sectors



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 textile and machinery industries as shown in Figure 14.

Figure 14: Per centage share of employment in manufacturing sub-sectors

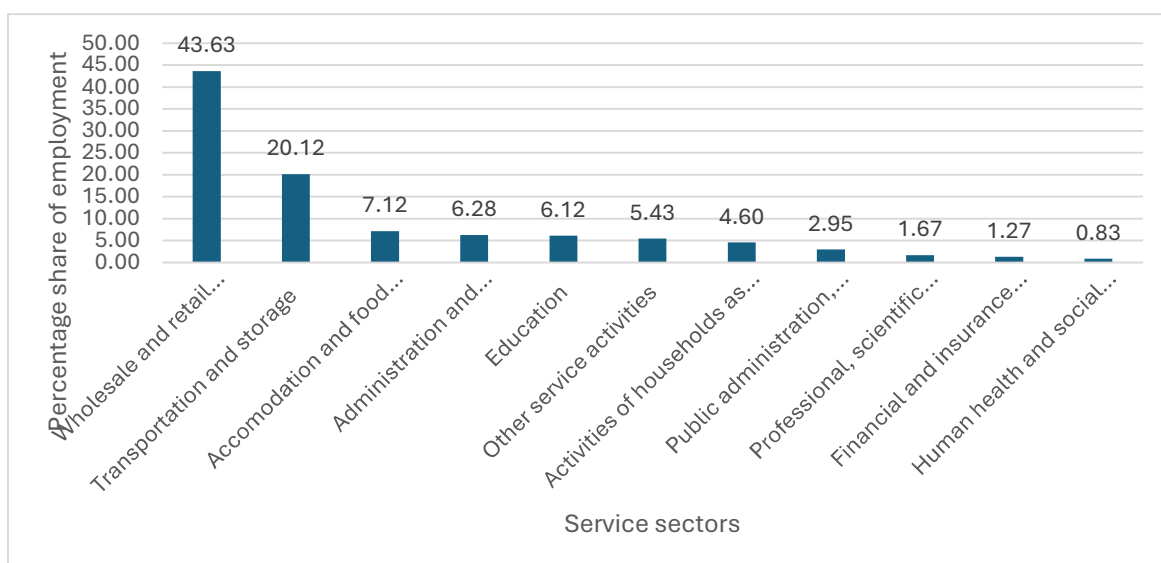


Data Source: KNBS 2021- Kenya Continuous Household Survey

Services Sector Employment

The majority of those working in the services sector are in wholesale and retail trade (Figure 15) which is dominated by the informal sector.

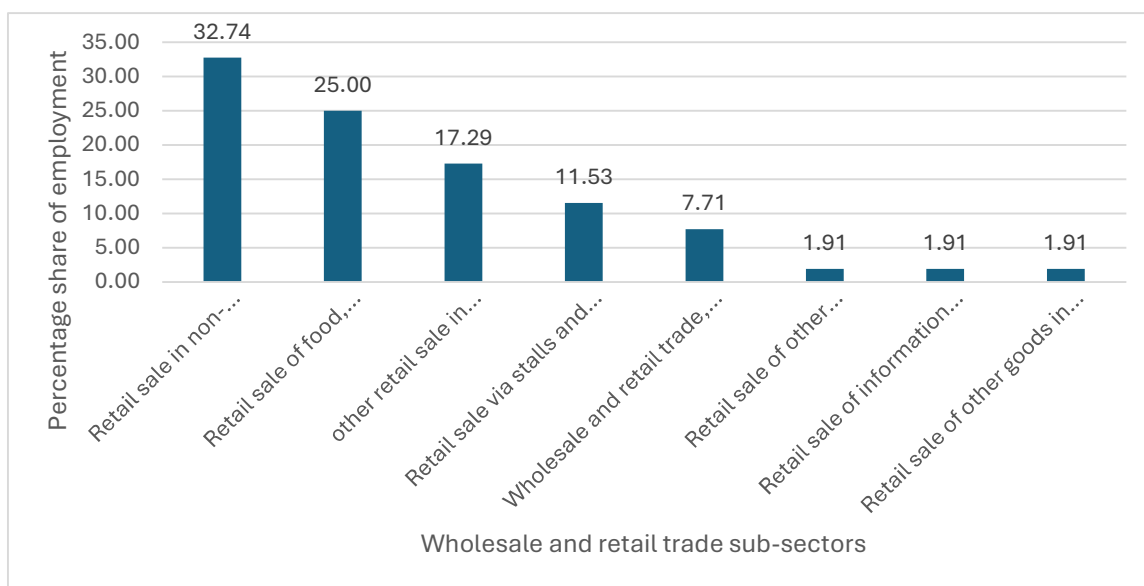
Figure 15: Per centage share of employment in the service sector



Data Source: KNBS 2021- Kenya Continuous Household Survey

In the wholesale and retail trade, the majority work in retail in non-specialized stores as shown in Figure 16.

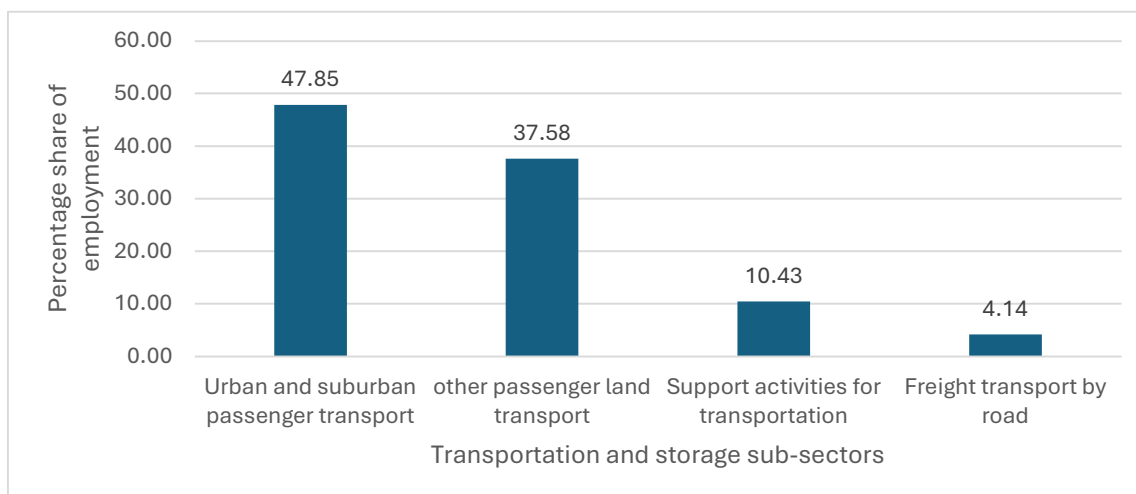
Figure 16: Per centage of persons employed in the wholesale and retail trade; repair of motor vehicle sub-sectors



Data Source: KNBS 2021- Kenya Continuous Household Survey

In the transportation and storage sub-sector, the majority of those employed are in urban and suburban passenger transport as shown in Figure 17.

Figure 17: Per centage share of employment in the transport and storage sub-sectors

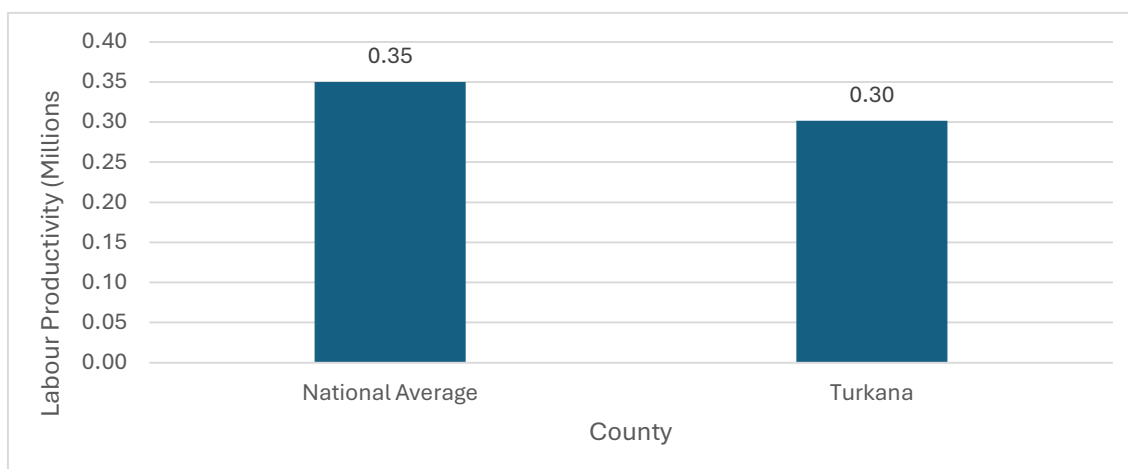


Data Source: KNBS 2021- Kenya Continuous Household Survey

Labour Productivity

Labour productivity for Turkana County is 0.30 per cent which is below the national average of 0.35 per cent as shown in Figure 18.

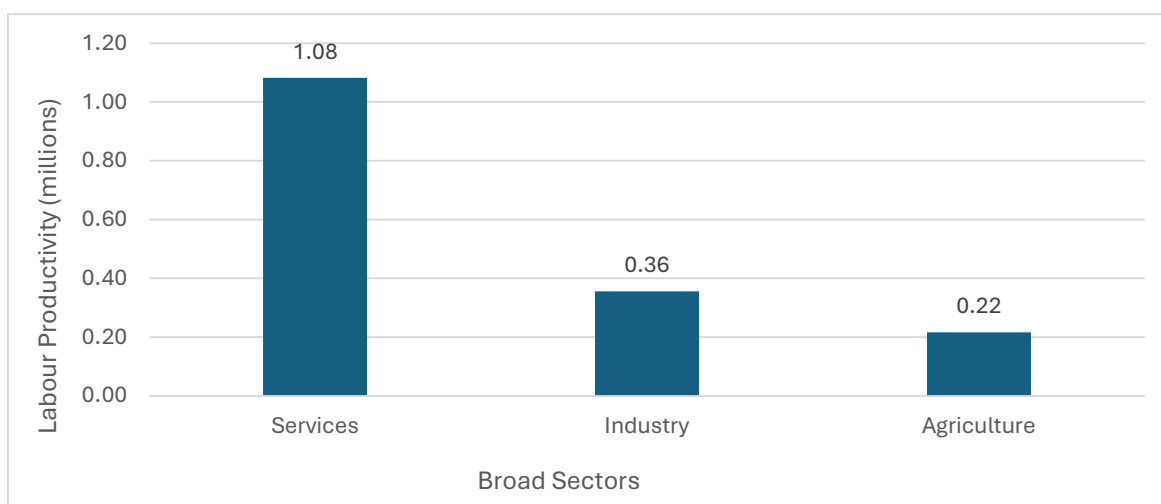
Figure 18: Labour productivity ratios (millions)



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 at 1.08 per cent, followed by the industry sector at 0.36 per cent, and thirdly the agriculture sector at 0.22 per cent as shown in Figure 19.

Figure 19: Labour productivity by sectors

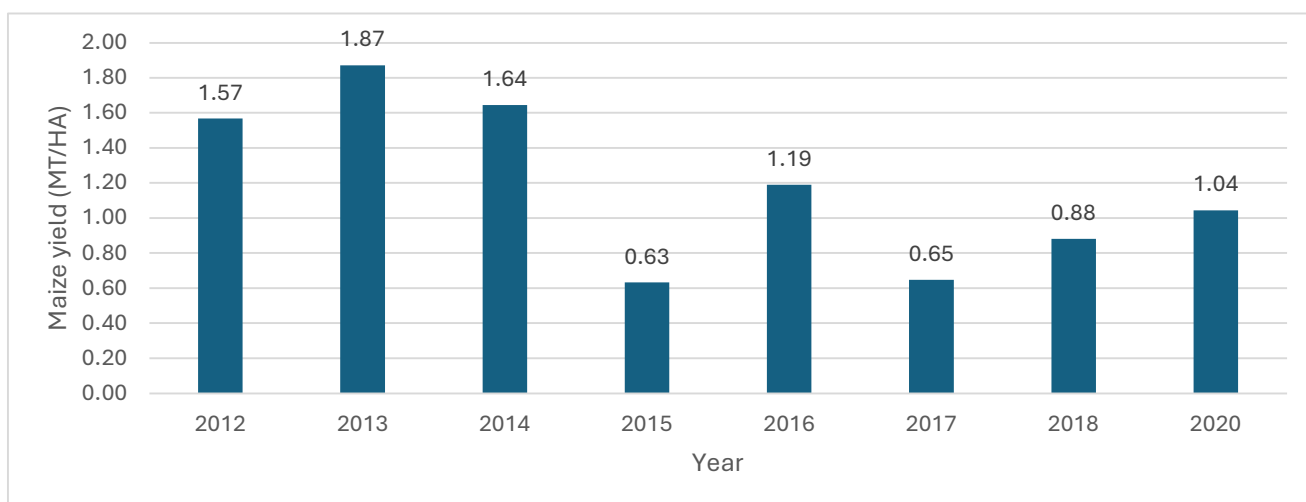


Data Source: Author's computation using KNBS 2023-Gross County Product and KNBS 2021- Kenya Continuous Household Survey

Agriculture Productivity

In agriculture maize yield is higher in Turkana County when compared with other arid counties at an average of 1.18 MT/HA. However, the productivity has been decreasing over the years with the lowest maize yield being in 2015 as shown in Figure 20.

Figure 20: Maize yield (MT/HA)

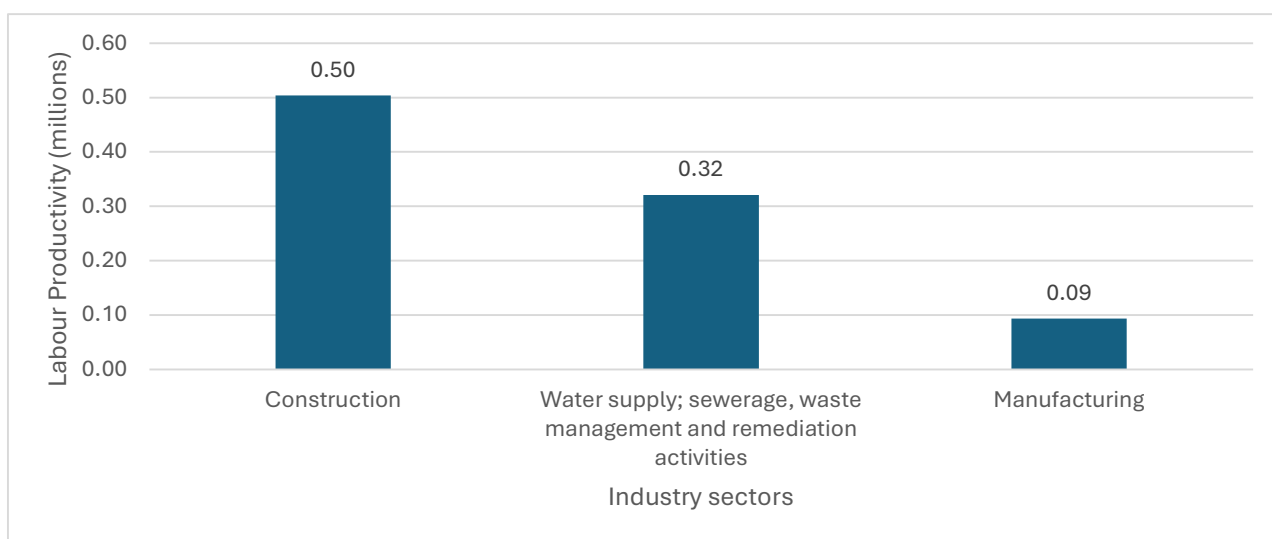


Data source: National Information Platform for Food and Nutrition (NIPFN)

Industry Sector Labour Productivity

Construction and water supply, sewerage, waste management, and remediation activities sub-sectors had the highest labour productivity in the industry sector as shown in Figure 20.

Figure 21: Labour productivity by industry sectors

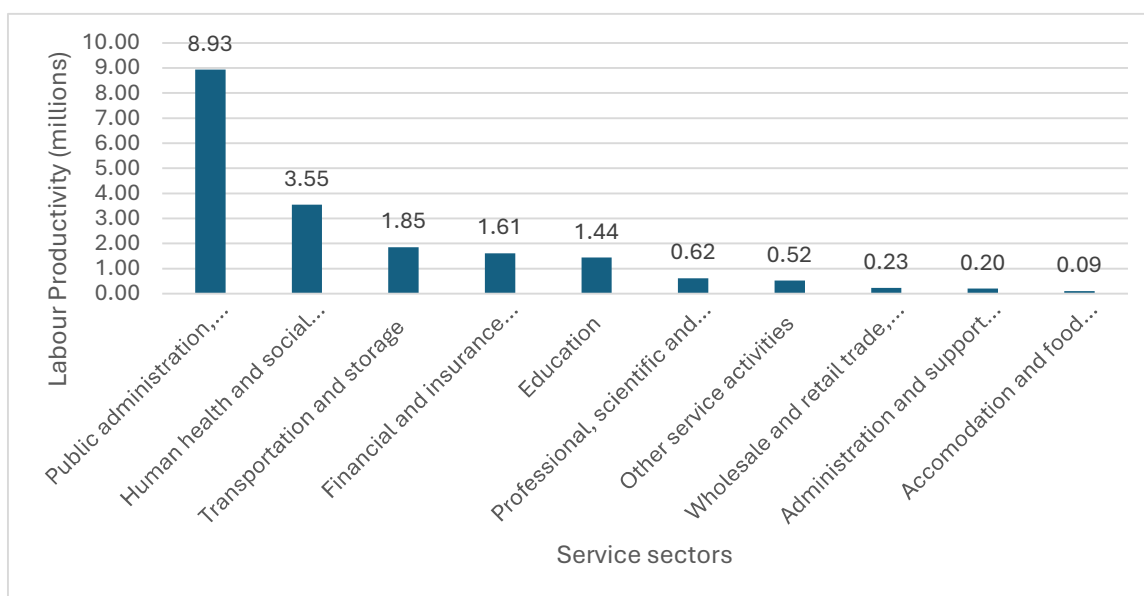


Data Source: Author's computation using KNBS 2023-Gross County Product and KNBS 2021- Kenya Continuous Household Survey

Service Sector Labour Productivity

Public administration and defence sector had higher labour productivity when compared with other sectors within the services sector as indicated in Figure 21.

Figure 22: 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 is shrinking as a share in GVA for Turkana. Industry sector is small contributing less than 10 per cent of total GVA. While land under maize peaked in 2016, this has declined significantly implying the potential is yet to be exploited. Livestock farming is dominated by sheep and goat, but beef dominates

the products with minimal goat meat and mutton. Fisheries are not fully exploited. Industry sector is dominated by construction sub-sector with little manufacturing. The transport and storage services dominate the services sector.

- (ii) The indicators of quality of labour are below the national average. Significant interventions are required to enhance literacy rate, increase enrolment in all levels of schooling, reduce child poverty and stunting, and reduce teenage pregnancy.
- (iii) All indicators of essential infrastructure and capital performed below the national average. It means significant investment is required to improve access to electricity, improve water and sanitation, financial inclusion, and internet connectivity.
- (iv) A high number of persons working in the age 5-17 years implies high child labour which denies children and teenagers to attend school. An elevated level of inactivity among the non-youth implies unutilised labour with potential to enhance productivity in the county. The agriculture sector employs most of the workforce in livestock production while industry has the lowest with majority in manufacturing of textile and wearing apparel. In services sector wholesale and retail sector dominates with majority in retail sale in non-specialized area.
- (v) Labour productivity is slightly lower than the national average. Services sector has the highest productivity while agriculture sector has the lowest, but it is clear maize yield can increase to as high as in 2013. In industry sector, the highest productivity is in construction sub-sector. In services sector, the public administration had the highest productivity.

Policy Recommendations

- (i) Enhance agriculture productivity by building climate resilience in the livestock sub-sector, increasing uptake of weather-based insurance scheme for livestock production by promoting use of asset backed insurance and subsidizing premiums for disadvantaged pastoralists. Also optimally utilizing the information from the early warning systems to encourage commercial offtake of livestock which will help mitigate losses. The county can also consider establishing county livestock enterprise fund that will finance pastoralists to restock after drought episodes to accelerate recovery.
- (ii) Exploit the livestock value through integration of livestock production into the leather and dairy value chain. In addition, integrate the county to the apiculture and fish value chain. This can be achieved by creating awareness among pastoralist on the value of hides and skins, increasing extension services to improve the quality of hides and skins, and facilitating aggregation and pooled sales of hides and skins. Also effectively equip the fishing value chain with necessary market infrastructure.
- (iii) To reduce the dominance of non-market services in Turkana County and encourage development of market-oriented services, there is need for the county to leverage on its tourism resources. Although Turkana County has national reserves with unique wildlife, the number of local and international tourists remains low. There is need to market the tourist sites in the counties to encourage local and international tourism. It is also important to incentivize players in the hotel and accommodation to invest in tourist facilities in the arid counties. Further, leverage on cultural tourism and desert safaris that are unique to the region.

- (iv) Create an enabling environment to attract much needed investment. This includes providing the essential infrastructure to enhance access to electricity, improve water and sanitation, financial inclusion, and internet connectivity. Increase funding to businesses established by vulnerable groups such as women like bead work to ensure inclusive support of persons in the informal sector.
- (v) To improve the quality of labour, encourage participation in the Adult and Continuing Education programme to improve the quality of the current labour force and support programmes being implemented by NACONEK in the county such as mobile schools, school feeding programmes and low-cost boarding schools.

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KIPPRA Policy Briefs are aimed at a wide dissemination of the Institute's policy research findings. The findings are expected to stimulate discussion and also build capacity in the public policy making process in Kenya.

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