



Policy Brief

Thinking Policy Together

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Assessing Labour Productivity for Marsabit County

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Introduction

Marsabit County is a member of the Frontier Counties Development Council (FCDC). It is classified as arid, experiencing 85-100 per cent aridity. Marsabit County covers an area of 66,923 km² and is the second largest county in the country by land mass. It has seven sub-Counties namely: Loiyangalani, Marsabit Central, Marsabit North, Marsabit South, Moyale, North Horr, and Sololo.

Key Highlights

Productivity in Marsabit County is characterized by the following:

- (i) The share of industry has increased to dominate the Gross Value Addition, agriculture has declined while the non-market service dominates the services sector. Marsabit County has a comparative advantage in livestock production but is not fully integrated into the leather and milk value chains. Furthermore, there is potential for crop production.
- (ii) The quality of labour is low given the low levels of literacy, education, and health indicators. Moreover, the majority of the essential infrastructure and capital indicators including electricity, rural roads, water and sanitation, and internet connectivity are lower than the national averages.

- (iii) The high unemployment rate in the county implies there is potential to enhance productivity with more engagement of the labour force. There is also a high level of child labour, which hinders the early attainment of formal skills that are needed for alternative livelihoods and the industrial transformation of counties.
- (iv) The services sector employs the highest workforce with the majority in the wholesale and retail sub-sector. In agriculture, labour is engaged in livestock production while in the industry sector, labour is engaged in construction.
- (v) Labour productivity is lower than the national average. Although the industry sector has the highest productivity this is mainly because of the high capital electricity supply. The high maize yields before 2015 is an indication of high potential for crop farming. Non-market services dominate service sector productivity.

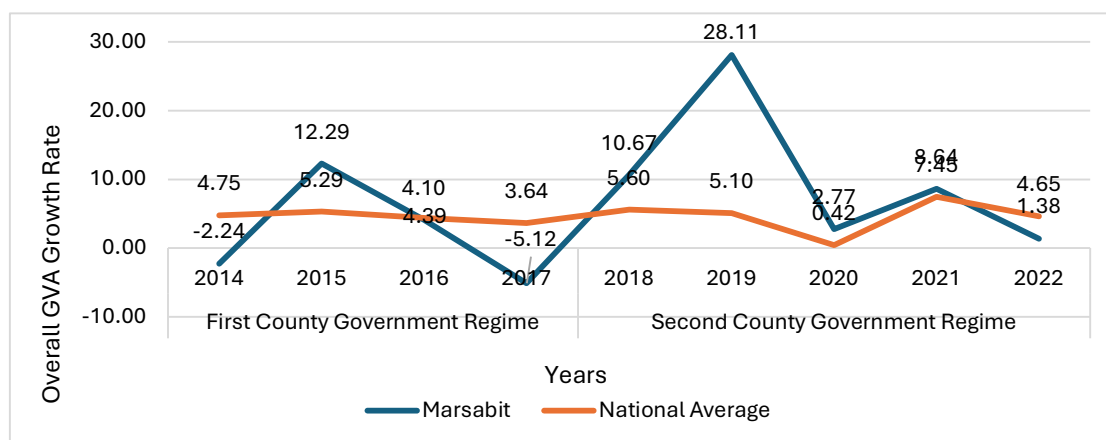
To improve productivity, there is a need to:

- (i) Exploit the potential of the agriculture sector by building climate resilience through increased uptake of weather-based insurance schemes, utilizing information from the early warning systems, integrating into the leather and dairy value chain, and exploiting the potential for crop farming.
- (ii) Create an enabling environment to encourage private sector growth in the services sector including leveraging tourism resources and investing in industries.
- (iii) Encourage participation in the adult and continuing education programme and enrolment of children in school including supporting programmes implemented by NACONEK such as mobile schools, school feeding programmes, and low-cost boarding schools.

Marsabit County Economic Performance

Marsabit County contributes on average 0.5 per cent of the National Gross Value Added with an average GVA size of Ksh 41,5383 million. The GVA per capita for Marsabit County is Ksh 90,342 with an average population growth of 3.0 per cent and overall poverty levels at 65.9 per cent. Marsabit County has an erratic growth rate with high growths and sharp declines. The county's average growth rate from 2013-2022 is 6.73 per cent, which is higher than the national average growth of 4.37 per cent. The highest growth rate was experienced in 2019 at 28.11 per cent while the highest decline in growth was experienced in 2017 at -5.12 per cent as shown in Figure 1.

Figure 1: Marsabit County GVA growth rate

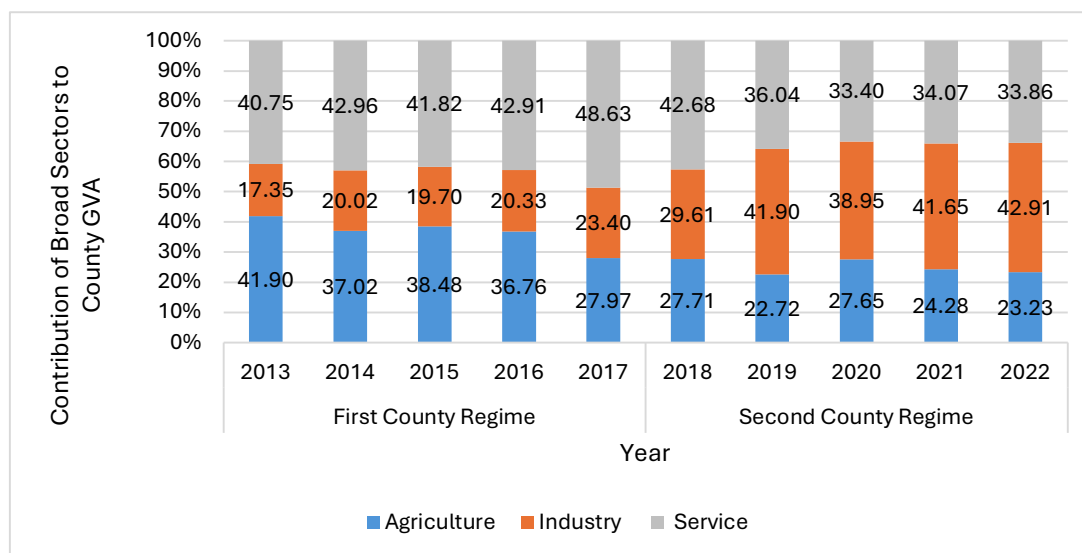


Data source: GCP 2023

Sectoral Analysis of Marsabit County GVA

The service sector is dominant in Marsabit County with an average contribution to GVA of 39.71 per cent. The agriculture sector is second, contributing an average of 30.77 per cent to the GVA while the industry sector contributes about 29.58 per cent as shown in Figure 2.

Figure 2: Contribution of broad sectors to Marsabit County GVA

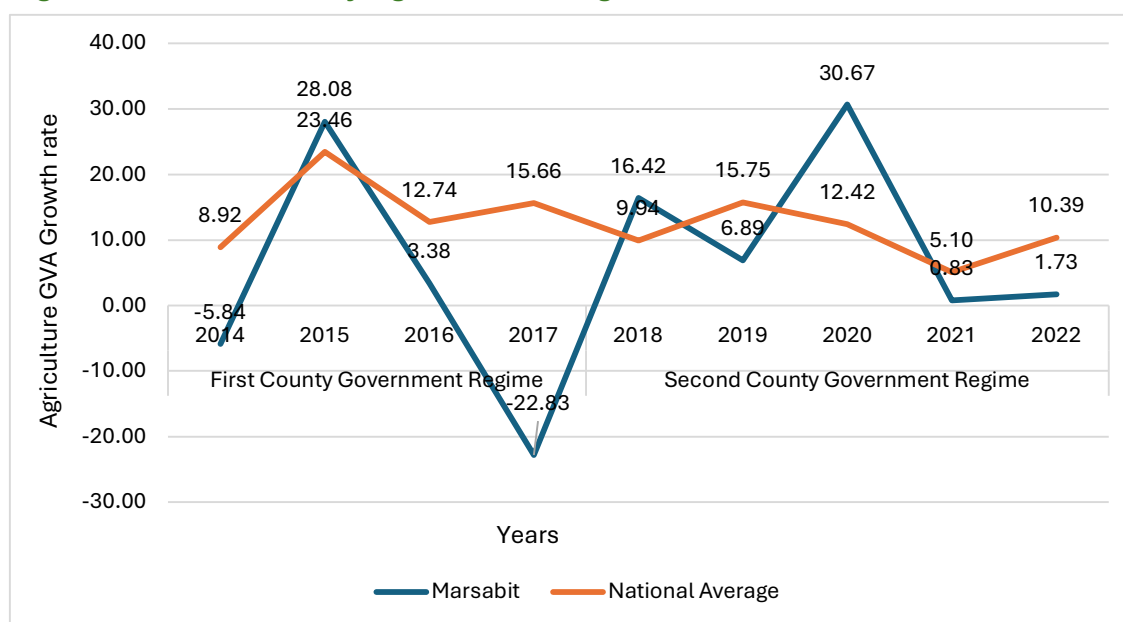


Data source: GCP 2023

Agriculture Sector

The average agriculture GVA growth rate (2013-2022) for Marsabit County is 6.59 per cent, which is below the national average of 12.71 per cent as shown in Figure 3. The agriculture sector's growth rate has a very erratic trend as it is highly vulnerable to drought shocks. The highest decline in growth was in 2017 at -22.83 per cent, attributable to a severe drought that affected about two (2) million people. The 2014 and 2020-2023 droughts also contributed to the decline in growth. The county has also experienced high growth rebounds as it recovered from drought episodes with the highest growth being in 2020 at 30.67 per cent.

Figure 3: Marsabit County Agriculture GVA growth rate

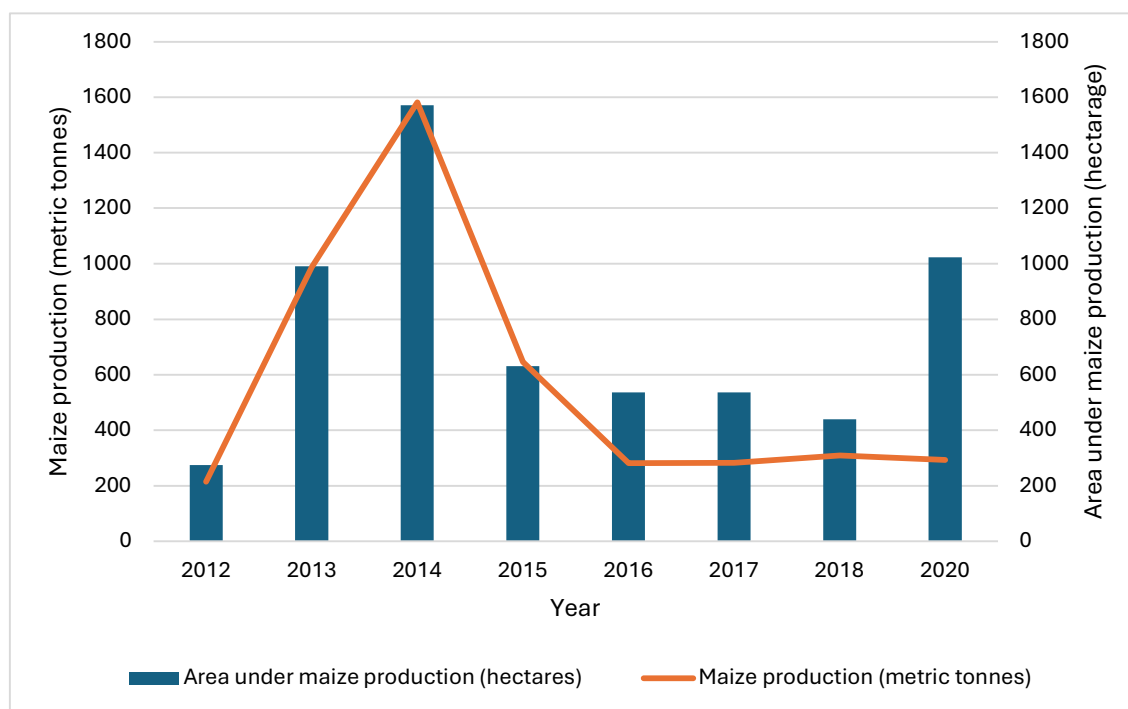


Data source: GCP 2023

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

The high aridity levels in Marsabit County limits rainfed crop production, this is reflected in the low area harvested for maize. Both maize production and the area under maize production have been decreasing over time. (Figure 4).

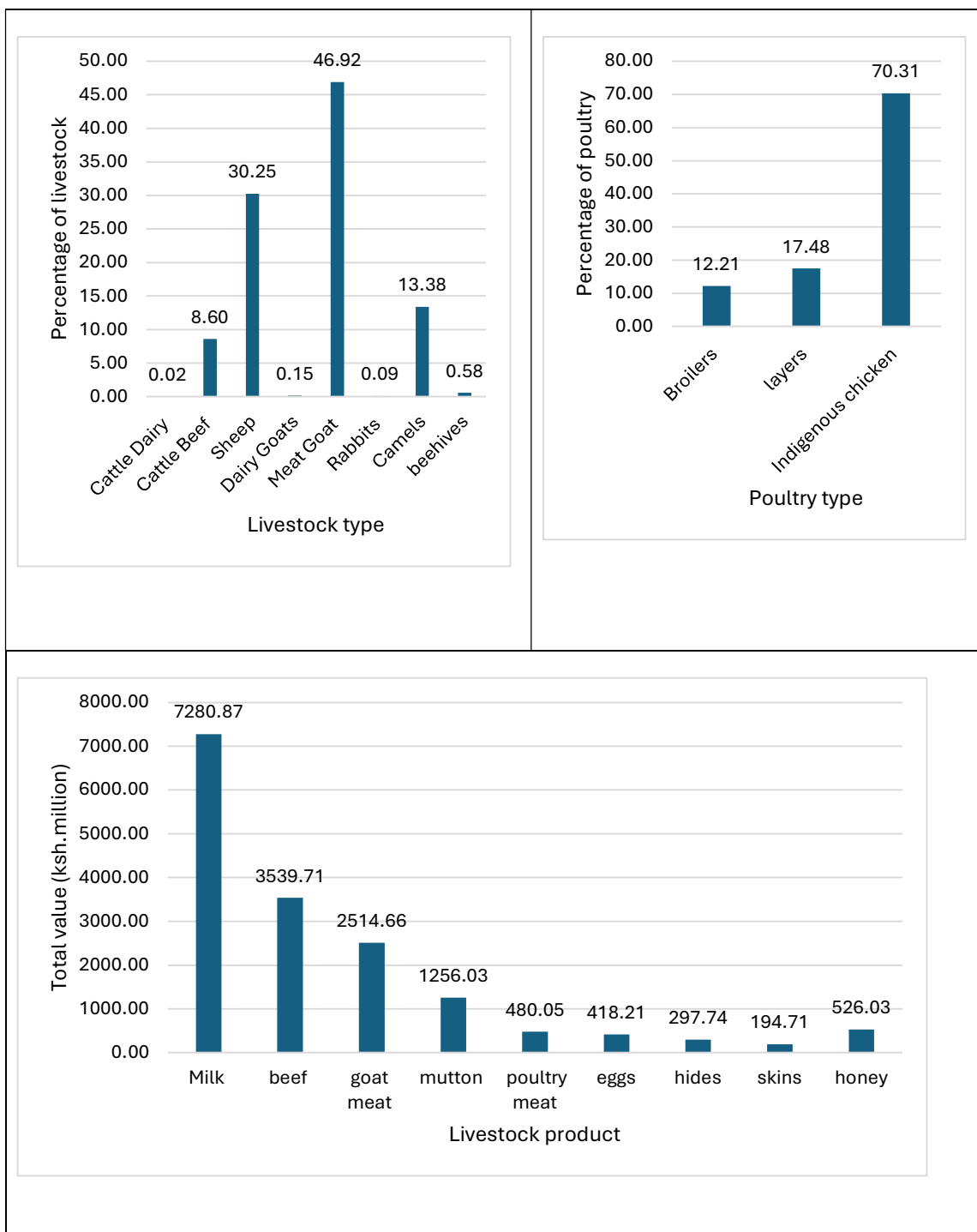
Figure 4: Maize production and area of maize harvested



Data source: NIPFN

Marsabit *County* has comparative advantages in livestock production, the county has a substantially high number of beef cattle, sheep, and meat goats in the country. Meat goats are the most popular livestock kept, although the number of poultry farming is comparatively low in the county, indigenous chicken is more popular. Milk and beef, products of cattle farming have the highest *economic* value in the county. Although Marsabit County has significant livestock resources, the value of marketed hides and skins is very 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 potential in livestock production (Figure 5).

Figure 5 : Livestock production statistics

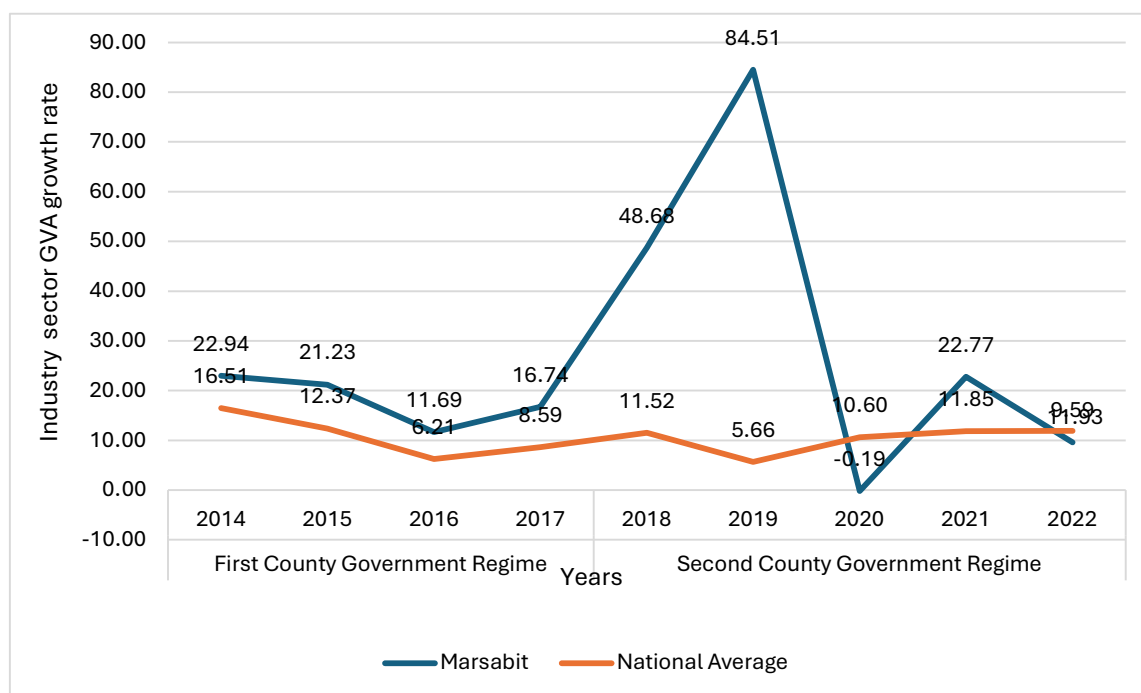


Data source: NIPFN

Industry Sector

The average industry sector growth rate for Marsabit County is 26.44 per cent, which is above the national average of 10.58 per cent as shown in Figure 6. The industry sector experienced the highest growth rate in 2019 with a growth rate of 84.51 per cent attributable to the increase in electricity supply from the Lake Turkana Wind Farm, which began feeding into the national grid.

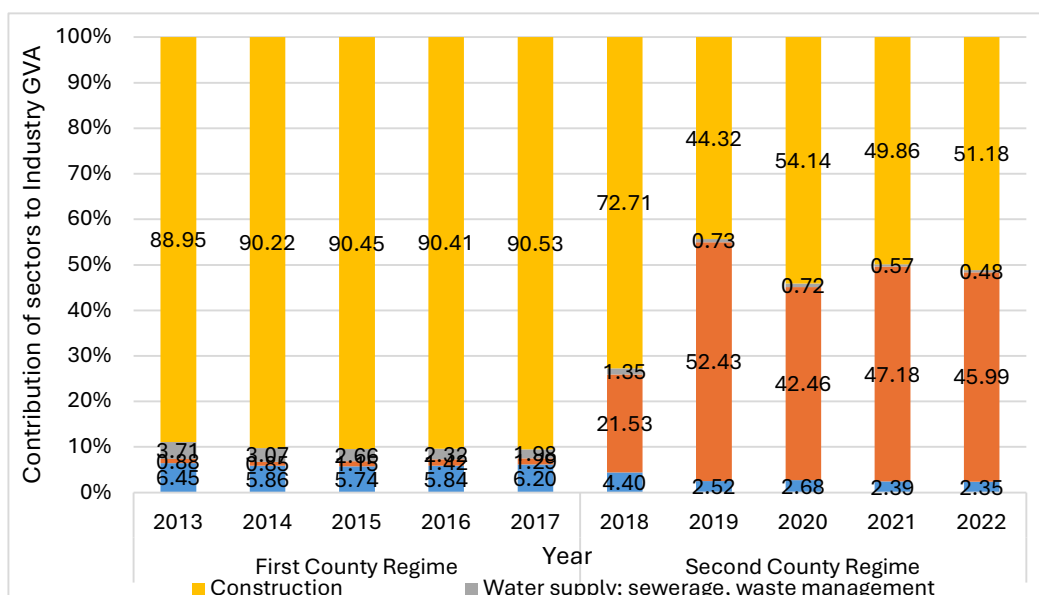
Figure 6: Marsabit County industry sector GVA growth rate



Data source: GCP 2023

The construction sub-sector dominates the industry sector in Marsabit County, this dominance was high in the first county regime and reduced in the second county regime with the output from electricity supply increasing. In fact, in 2019, electricity supply dominated the share of output in the industry sector.

Figure 7: Contribution of industry sectors to industry GVA

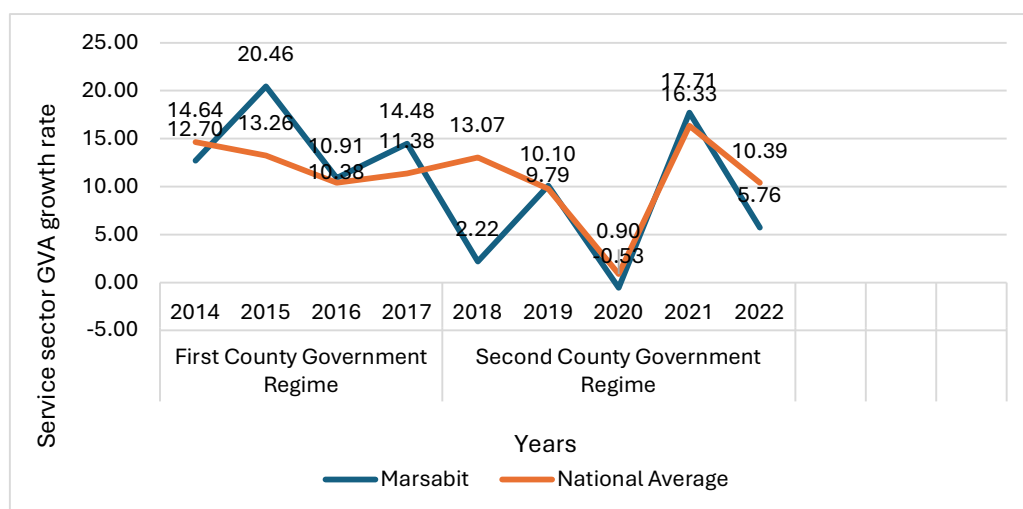


Data source: GCP 2023

Services Sector

The average service sector growth rate is 9.40 per cent, which is below the national average of 11.13 per cent as shown in Figure 8.

Figure 8: Marsabit County Services Sector GVA growth rate

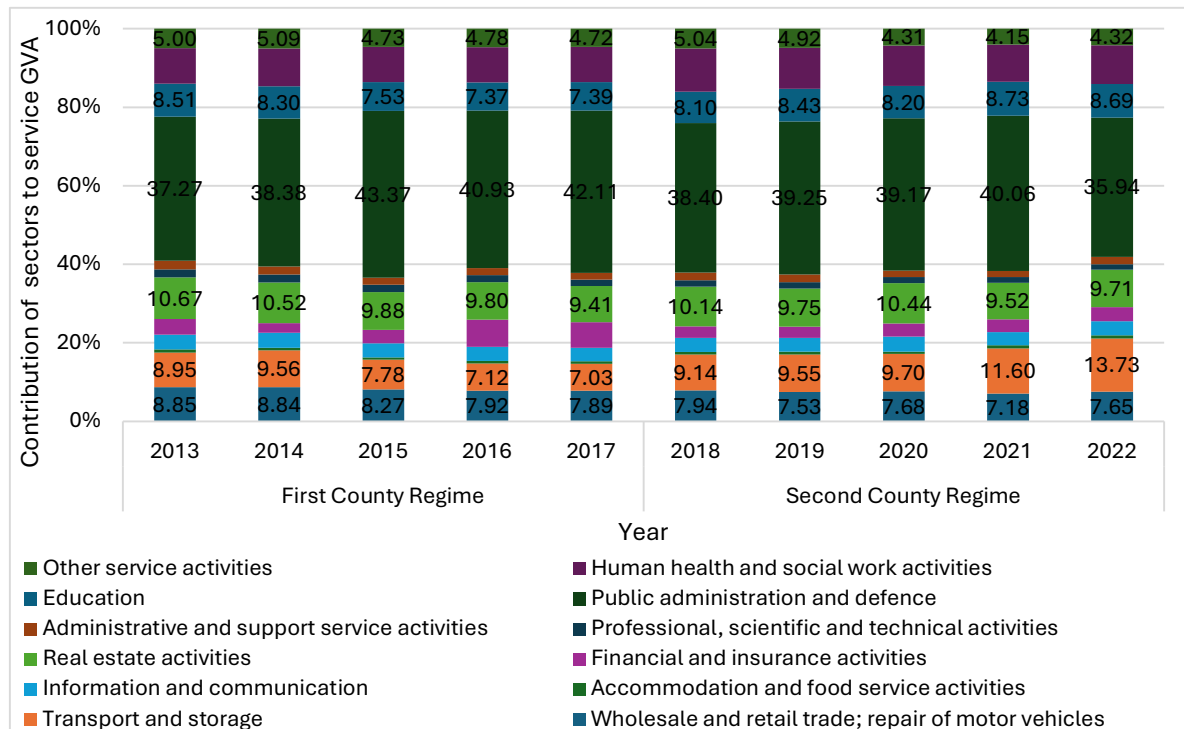


Data source: GCP 2023

The public administration and defence sub-sector – a non-market service – dominates the services sector with the highest contribution to service GVA at 39.49 per cent. The real estate activities sector is the second highest contributor to services GVA at 9.98 per cent. The human health and social work activities sector is third at an average of 9.84 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 very low contributing between 4-5 per cent to services GVA. Marsabit County has three national reserves namely Mt. Marsabit National Park and Reserve; South Island National Park; and Losai National Reserve, which host unique wildlife including the endangered African wild dog, Beisa oryx, and Grevy's zebra. Mt. Marsabit National Park and Reserve Forest has an equatorial climate with rainfall and temperature very different from the arid characteristics of the county. Furthermore, the mountains have several unique freshwater lakes.

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



Data source: GCP 2023

Quantity and Quality of Labour Force in Marsabit County

Marsabit County has a total working-age population of 230,067, which is about 50.04 per cent of the total county population. The majority of the working-age population is youthful (18-34 years) at 54.08 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	21,908	16,388	38,296	16.65
18 –24	33,195	28,662	61,857	26.89
25-34	33,315	29,252	62,567	27.20
35-64	36,489	30,858	67,347	29.27
Total	124,907	105,160	230,067	

Data source: KPHC 2019

The majority of the population in Marsabit sub-counties are persons in the working age categories. Marsabit North has the highest percentage of working-age persons at 55.28 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 percentage of the total sub-county population
		15-17	18 –24	25 –34	35-64	
Loiyangalani	35,710	2,144 (13.23)	3,860 (23.82)	5,038 (31.09)	5,165 (31.87)	16,207 (45.39)

Marsabit Central	79,170	6,777 (16.15)	11,287 (26.89)	11,524 (27.46)	12,380 (29.50)	41,968 (53.01)
Marsabit North	54,296	4,617 (15.38)	7,539 (25.12)	8,322 (27.72)	9,539 (31.78)	30,017 (55.28)
Marsabit South	65,376	4,843 (15.60)	8,454 (27.24)	8,921 (28.74)	8,821 (28.42)	31,039 (47.48)
Moyale	108,948	9,753 (19.24)	14,438 (28.48)	12,988 (25.62)	13,517 (26.66)	50,696 (46.53)
North Horr	71,445	6,136 (15.71)	10,600 (27.15)	10,643 (27.26)	11,670 (29.89)	39,049 (54.66)
Sololo	44,822	4,026 (19.09)	5,679 (26.93)	5,131 (24.33)	6,255 (29.66)	21,091 (47.06)

Data source: KPHC 2019

In Marsabit County, the majority of socioeconomic indicators that affect the quality of labour are lower than the national average as indicated 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 (2019)	37.80	78.41
Pre-primary net enrolment rate (2019)	30.35	67.51
Primary school net enrolment rate (2020)	38.90	77.72
Secondary school net enrolment rate (2020)	12.10	54.18

Average years of schooling (2014)	6.70	7.78
Percentage of children 12-23 months fully vaccinated (2022)	67.50	74.97
Percentage of stunted children (2022)	18.90	19.75
Percentage of teenage pregnancy (2022)	29.40	15.79
Primary to secondary transition rates (2020)	79.30	86.13
Pupil-teacher ratio (primary school) (2020)	20.00	28.28
Food poverty headcount (%) (2021)	55.60	33.63
Child Poverty headcount (%) (2021)	66.10	42.67

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

For Marsabit County majority of the essential infrastructure and capital indicators that support production of county output are lower than the national averages as shown in Table 4. There is a 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 capital indicators

Essential infrastructure indicators	County	National average
Percentage of households with access to electricity (2019 Census)	21.30	38.52
Distribution of population using the internet (2019 census)	8.30	18.69
Rural Access Index (2018)	5.06	63.72

Access to improved sanitation (2018)	26.00	59.04
Access to improved water (2018)	42.90	65.33
Financial inclusion level (2021)	78.40	81.01
The proportion of primary schools with internet	19.70	27.65
Proportion of secondary schools with functional internet	35.40	35.13
Percentage of households by housing material composite-finished materials (adequate) (2019)	33.43	51.71
Percentage of households using bank usage (overall)	9.70	38.18
Percentage of households using mobile money)	77.80	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 at 52.68 per cent the majority of those working is the youthful working population 18- 34 at about 28.47 per cent while those 35-64 at 18.23 per cent as shown in Table 5. There is little disparity in employment by gender as the percentage of the males employed is 40.32 per cent while females are at 37.28 per cent. The unemployment rate is high at 19.76 per cent with unemployment being slightly higher for the youth (18-34 years) at 11.50 per cent and those between 35-64 years at 5.49 per cent.

There is a high percentage of persons aged 5-17 years working at 35.57 per cent. The cultural practices may explain this as children and teenagers in pastoral communities play an important role in livestock production as they graze 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 the industrial transformation of counties. Climate change through frequent droughts that force communities to migrate in search of resources could also be a contributing factor. Incidences of insecurity, which disrupt learning activities are also a possible cause of the high out-of-school children who are engaged in economic activities.

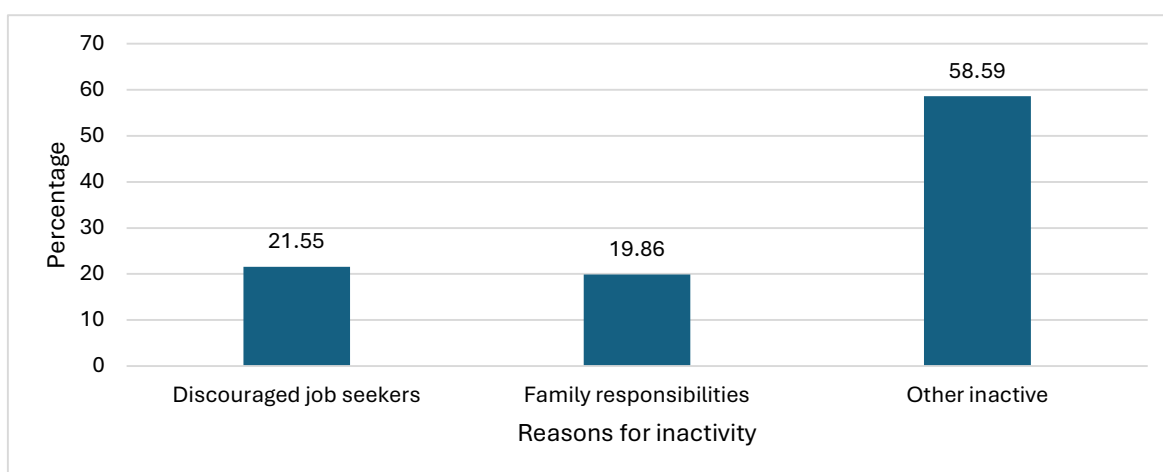
The inactivity rate for the youth category is 14.98 per cent while for the non-youth is 7.67 per cent. The higher inactivity rates for persons of prime age in Marsabit County compared with the other counties is of concern as it indicates lower labour utilization. The high number of persons inactivity by discouraged jobseekers is also of concern as it indicates low labour utilization.

Table 5: Marsabit County employment statistics

Employment statistics	Youth	Non-youth
Employment to population ratio (%)	28.47	18.23
Unemployment rate	11.50	5.49
Percentage of persons 5–17 years old working	35.57	-
Inactivity rate	14.98	7.67

Data source: KNBS, KPHC 2019

Figure 10: Reasons for inactivity

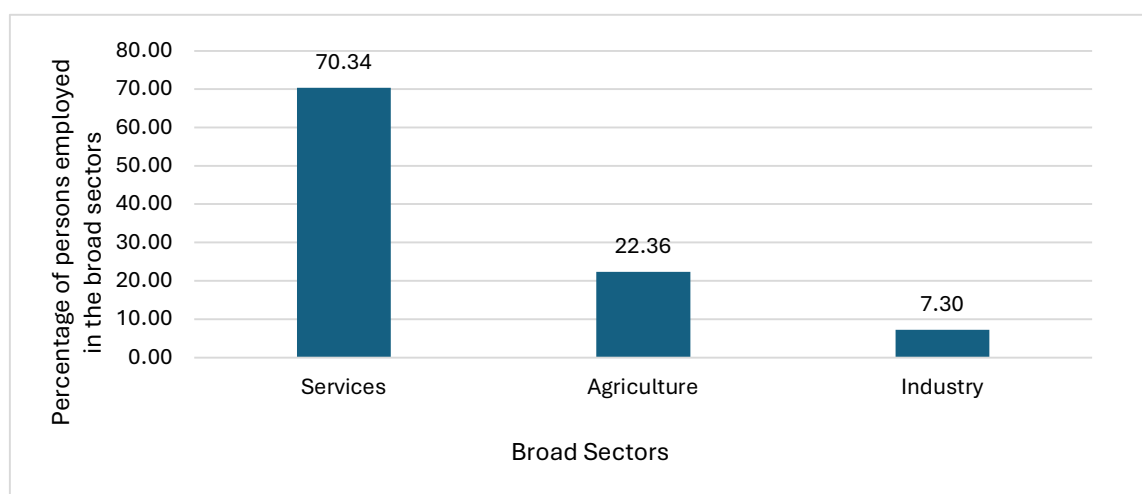


Sectoral Employment

The service sector is the highest employer in Marsabit County at 70.34 per cent followed by the agriculture sector at 22.36 per cent. The industry sector is third at 7.30 per cent as shown in Figure 11.

The shocks caused by climate change are some of the push factors that lower reliance on agriculture employment in Marsabit County leading to the transfer of labour into sectors less affected by climate change. The services sector has provided labour flows from agriculture becoming the highest employer.

Figure 11: Percentage of persons employed in the broad sectors

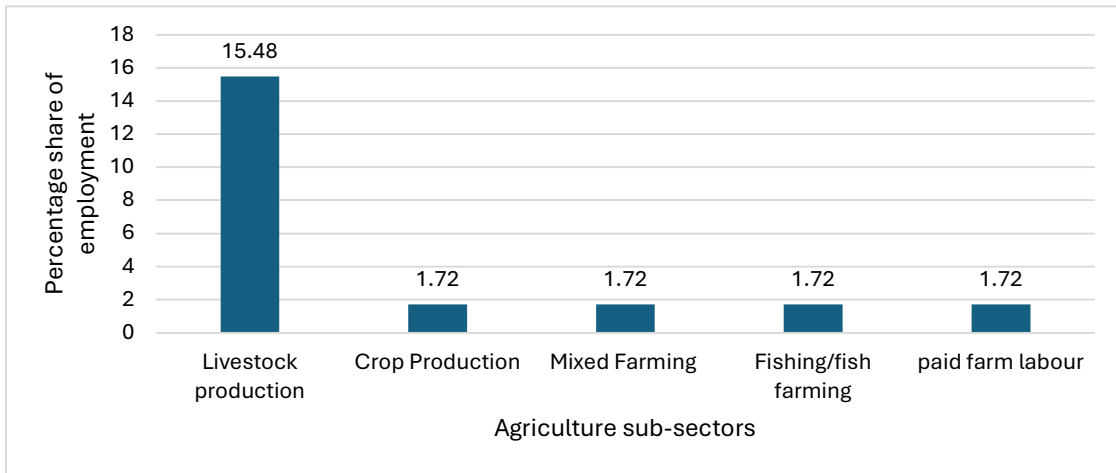


Data source: KCHS 2021

Agriculture Sector

In agriculture, the majority are those practicing livestock production as shown in Figure 12. This reflects the comparative advantages the county has in livestock production.

Figure 12: Percentage share of employment in agriculture sub-sectors

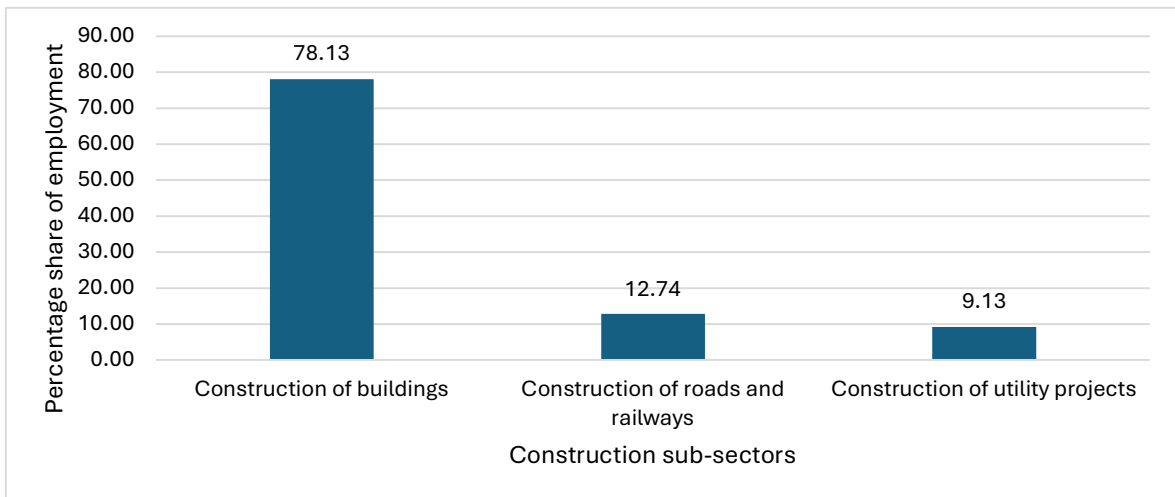


Data source: KCHS 2021

Industry Sector

The majority of those working in the construction sector are in the construction of buildings as observed in Figure 13. The construction sector is highly volatile, and employment in the sector is subject to significant fluctuations. The construction industry is also subject to seasonal employment patterns raising concerns over the sustainability of employment in the sector.

Figure 13: Percentage share of employment in the industry sectors

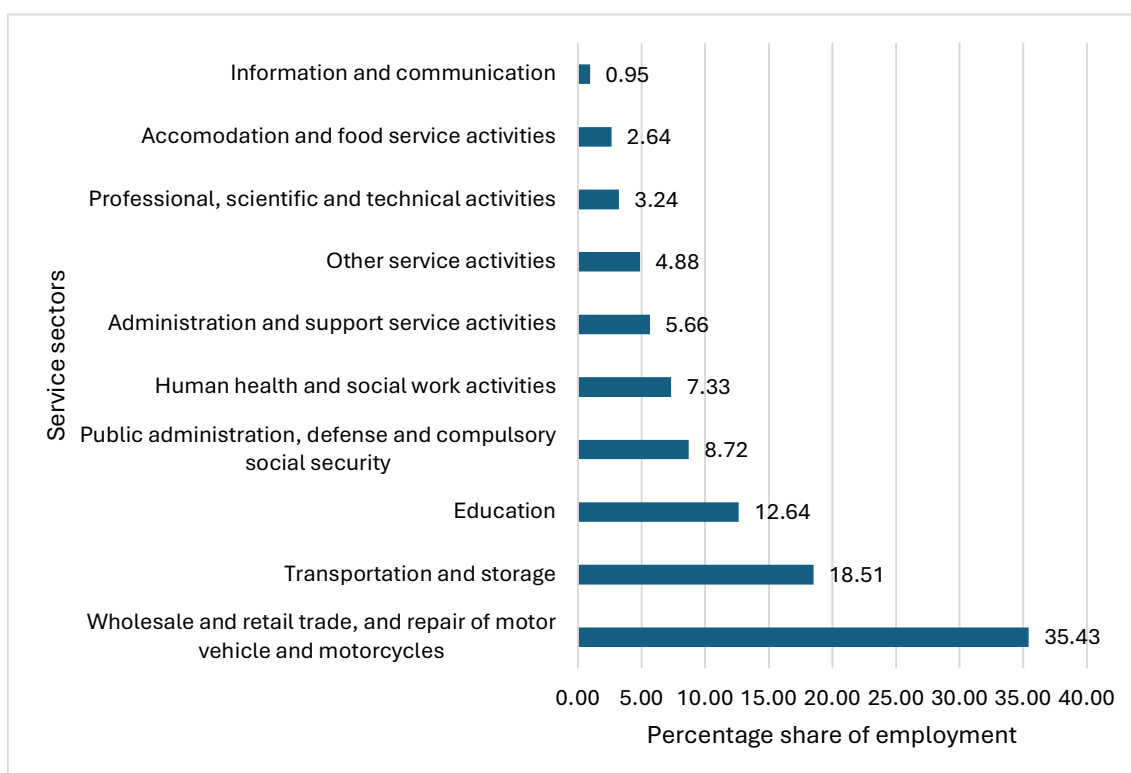


Data source: KCHS 2021

Services sector

The majority of those working in the service sector are in wholesale and retail trade as shown in Figure 14, which is dominated by the informal sector.

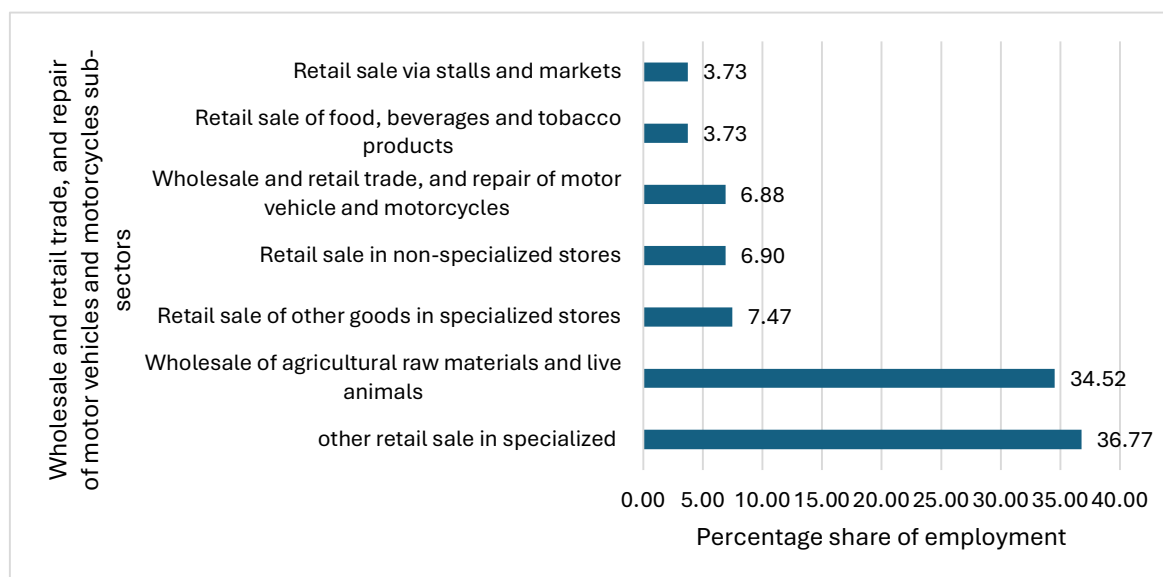
Figure 14: Percentage share of employment in the service sector



Data source: KCHS 2021

In the wholesale and retail trade, and repair of motor vehicles and motorcycles sector, the majority work in other retail sales in specialized stores as shown in Figure 15.

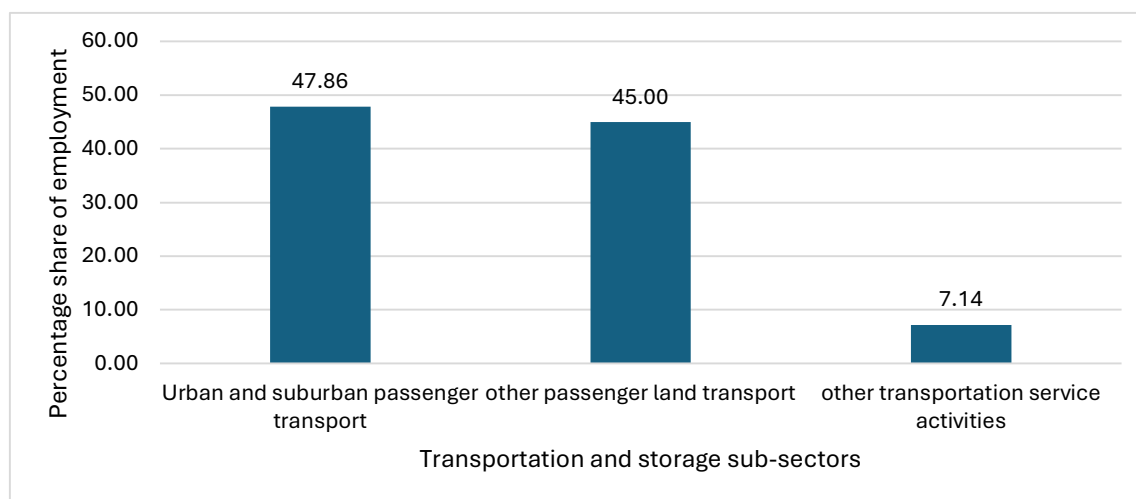
Figure 15: Percentage of persons employed in the wholesale and retail trade, and repair of motor vehicle sub-sectors



Data source: KCHS 2021

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

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

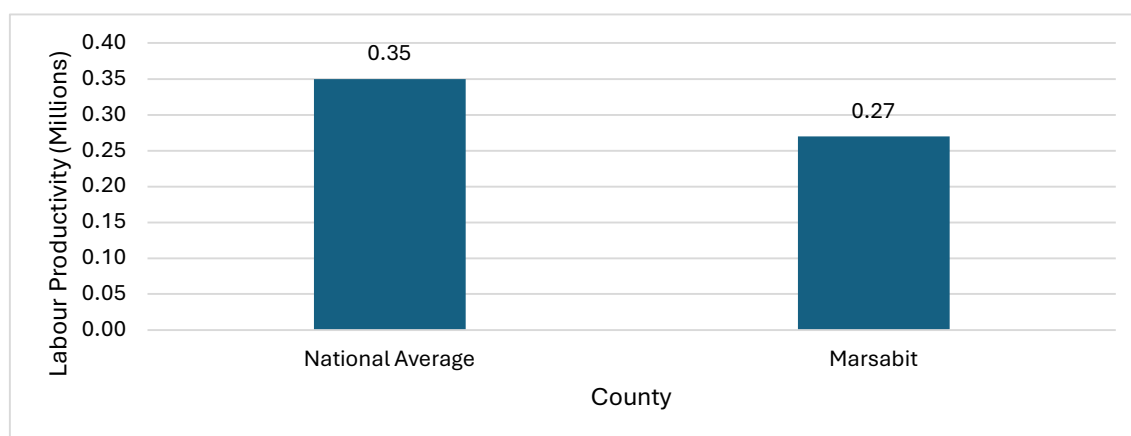


Data source: KCHS 2021

Labour Productivity

Labour productivity for Marsabit County is 0.27 per cent, which is below the national average labour productivity of 0.35 per cent as shown in Figure 17.

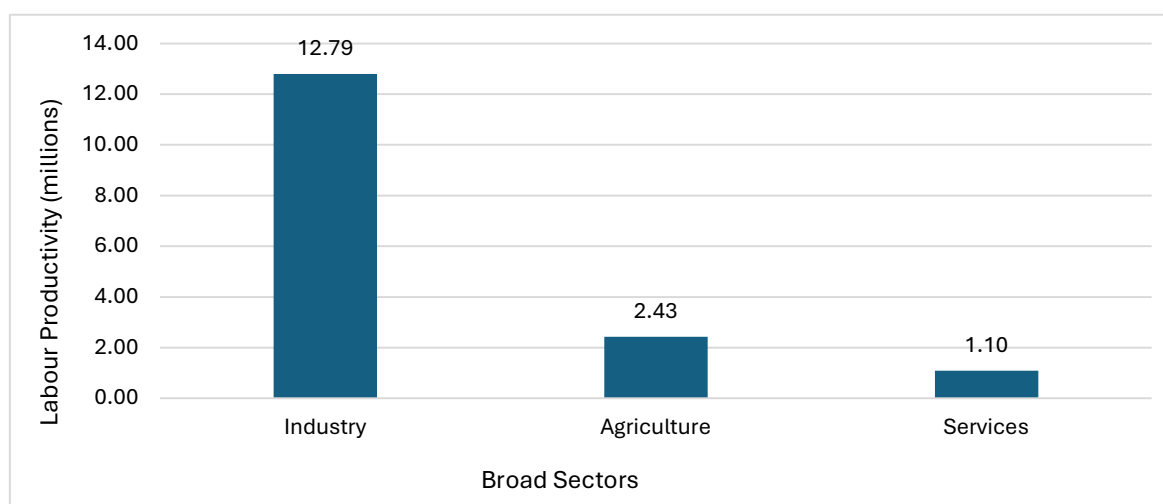
Figure 17: Labour productivity ratios (millions)



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

The industry sector had the highest productivity at 12.79 per cent, followed by the agriculture sector at 2.43 per cent, and thirdly the services sector at 1.10 per cent as shown in Figure 18.

Figure 18: Labour productivity by sectors

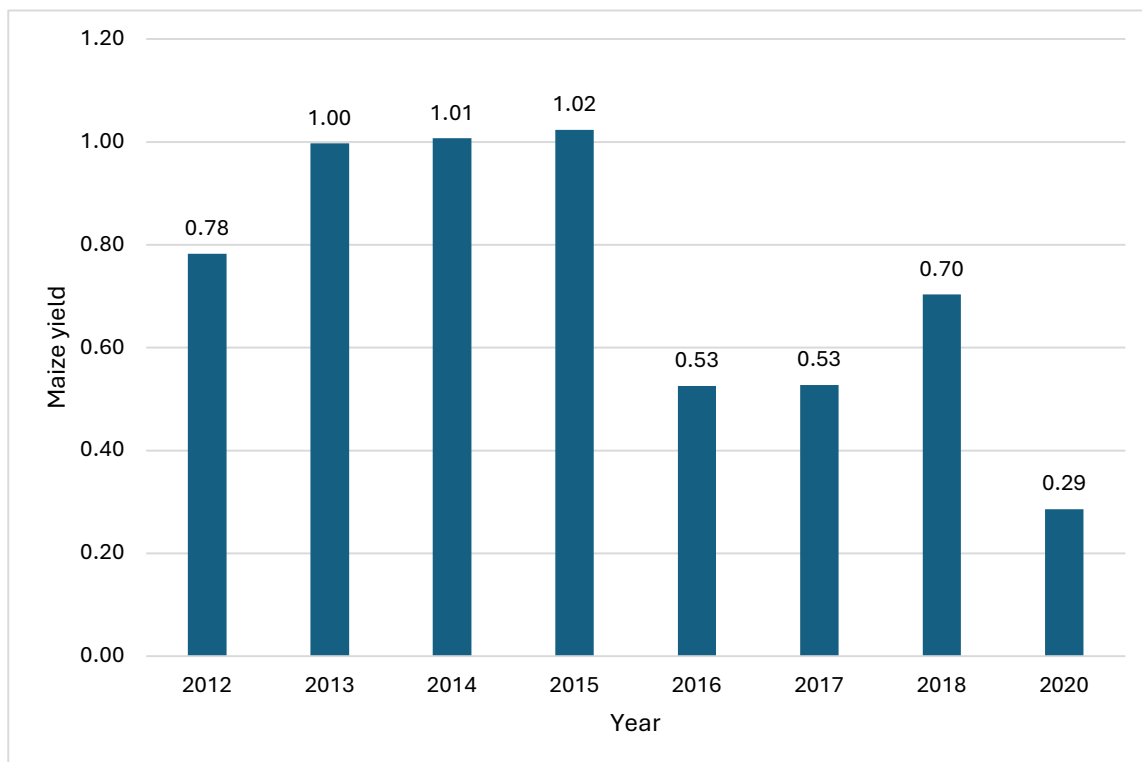


Data source: Author's computation using KNBS GCP 2023 and KCHS 2021 data

Agriculture sector

In agriculture, maize yield is very low in Marsabit County at an average of 0.73 MT/HA. This is attributed to dependence on rainfed agriculture in the face of high aridity levels and episodic drought shocks. The lowest maize yield was experienced in 2020, which can be attributed to the 2020-2023 multi-year drought that disproportionately affected arid counties.

Figure 19: Maize yield (MT/HA)

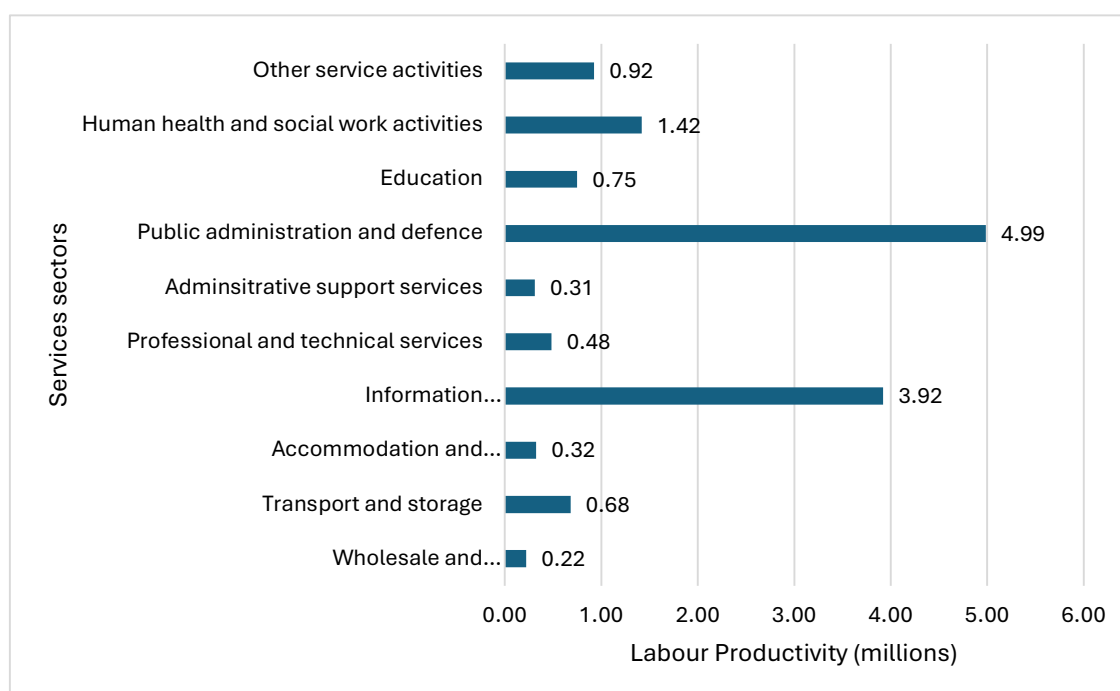


Data source: NIPFN

Services Sector

The public administration and defence sub-sector has relatively 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 lowest labour productivity as observed in Figure 21.

Figure 20: Labour productivity in services sectors



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

Key Messages

- (i) The share of industry has increased to dominate the GVA while agriculture has declined. This is mainly because of the growth in the electricity supply since 2019. The non-market service dominates the services sector indicating lower output from the market-oriented services.
- (ii) Marsabit County has comparative advantages in livestock production, mainly goat, sheep, and cattle for beef but the low-marketed hides and skins indicate that livestock production is yet to be fully integrated into the leather value chain. Further, the high value of milk implies there is potential for dairy animals.
- (iii) The quality of labour is very low as demonstrated by various indicators that are mainly below the national average. Interventions are required to improve literacy rates, education, health, and poverty levels.
- (iv) Further, the majority of the essential infrastructure and capital indicators that support the production of county output are lower than the national averages. There is a need for interventions to improve access to electricity, provide for rural roads, improve water and sanitation, as well as internet connectivity.
- (v) Unemployment rate in the county is high at 19.76 per cent with unemployment being slightly higher for the youth at 11.50 per cent. There is a high percentage of persons

aged 5-17 years working at 35.57 per cent. The high out-of-school children who are engaged in economic activities hinder the early attainment of formal skills that are needed for alternative livelihoods and industrial transformation of counties.

- (vi) The services sector employs the highest workforce with the majority in the wholesale and retail sectors. In agriculture, labour is engaged in livestock production while in the industry sector labour is engaged in construction.
- (vii) Labour productivity is lower than the national average. The industry sector has the highest productivity mainly because of the high capital electricity supply. The high maize yields before 2015 are an indication that crop farming can enhance agricultural productivity. Non-market services, public administration dominates services sector productivity, which means there is potential to enhance private activity in the services sector.

Policy Recommendations

- (i) Exploit the potential of the agriculture sector by building climate resilience through increased uptake of weather-based insurance schemes; promoting the use of asset-backed insurance with subsidized premiums for the pastoralists; optimizing the utilization of information from the early warning systems to encourage commercial offtake of livestock, which will help mitigate losses; and encouraging crop production.
- (ii) Further, the county needs to optimally exploit the livestock value through the integration of livestock production into the leather and dairy value chain. This can be achieved by increasing the supply of hides and skins through strategies such as creating awareness among pastoralists 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. Furthermore, dairy animal farming has the potential to increase milk production.
- (iii) To reduce the dominance of non-market services in Marsabit County and encourage the development of market-oriented services, there is a need for the county to create an enabling environment for the private sector including leverage on its tourism resources. Although Marsabit County has three national reserves with unique wildlife, the number of local and international tourists remains low. There is a need to market the tourist sites in the counties to encourage local and international tourism and incentivize players in the hotel and accommodation to invest in tourist facilities in the arid counties. Leveraging on cultural tourism and desert safaris that are unique to the region.
- (iv) To create jobs and optimally utilize the labour in Marsabit County, enhance the investment climate by providing incentives to attract investment in industries that would provide employment opportunities. Also, increase funding to businesses established by vulnerable groups such as women and youth to ensure inclusive support of persons in the informal sector.

- (v) To improve the quality of labour in Marsabit County the national government needs to encourage participation in the adult and continuing education programme and enrolment of children in school to improve the quality of the current labour force. This can be done through increasing awareness campaigns on the benefits of adult learning, targeting out-of-school youth and adults in the county. Further, improving the effectiveness of adult learning centres in Marsabit County by investing in mobile adult learning centres that target nomadic pastoralists who move during droughts. Increasing funding to the adult and continuing education programme to increase the number of facilities and trainers. In addition, increase funding to the programmes currently being implemented by NACONEK such as mobile schools, school feeding programmes, and low-cost boarding schools.

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