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Assessing Labour Productivity for Laikipia County

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Introduction

Laikipia County is a member of the Central Region and Economic Bloc (CEREB). The county is classified as a semi-arid county with aridity levels of between 30-84 per cent aridity levels. The land mass of Laikipia County is 8,696 km². Laikipia County has five sub-counties namely: Laikipia Central, Laikipia East, Laikipia North, Laikipia West, and Nyahururu.

Key Highlights

The productivity of Laikipia County is characterized by the following:

- (i) The service sector has the largest share of Gross Value Added (GVA). Construction dominates the industry sector while manufacturing has declined. The transportation and storage sub-sector dominates the services sector.
- (ii) Quality of labour requires interventions to increase literacy rates and children immunization rates and reduce stunting and child poverty.
- (iii) Essential infrastructure requires interventions to increase access to improved water and sanitation, improved housing quality electricity, and internet connectivity.
- (iv) The agriculture sector is the highest employer, with crop production and mixed farming dominating. In manufacturing, significant employment is in agroprocessing and printing. In wholesale and retail trade, employment is in the retail trade not in stores, stalls, and markets.
- (v) Labour productivity is highest in the industry sector while the agriculture sector has the least labour productivity. The construction sub-sector had the highest labour productivity in the industry sector while the public administration and defence had higher labour productivity in the services sector.

To enhance productivity, there is a need to:

- (i) Build climate resilience in agriculture by increasing the uptake of crop insurance and using information from the early warning systems to inform crop production.
- (ii) Integrate small farmers into the dairy and leather value chains and promote emerging activities including poultry and agriculture.
- (iii) Invest in manufacturing to increase agro-processing and support the implementation of the County Aggregation Industry Park to enhance the productivity of the MSMEs.
- (iv) Secure the quality of future labour by implementing nutrition-sensitive social protection programmes and encouraging participation in the adult and continuing education programme.
- (v) Invest in essential infrastructure prioritizing access to internet connectivity, electricity, improved water and sanitation, and quality housing.
- (vi) Provide adequately equipped market spaces.

Laikipia County Economic Performance

Laikipia County contributes 0.9 per cent on average to the National Gross Value Added with an average GVA size of Ksh 67,7552 million. The GVA per capita for Laikipia County is Ksh 130,664.83, with an average population growth rate of 2.1 per cent and an overall poverty rate of 34.8 per cent.

Laikipia County has shown a growth in GVA with an average growth rate of 5.02 per cent from 2013-2022, which is higher than the national average growth of 4.37 per cent as shown in Figure 1. The highest growth rate was experienced in 2015, while the lowest growth rate was experienced in 2017.

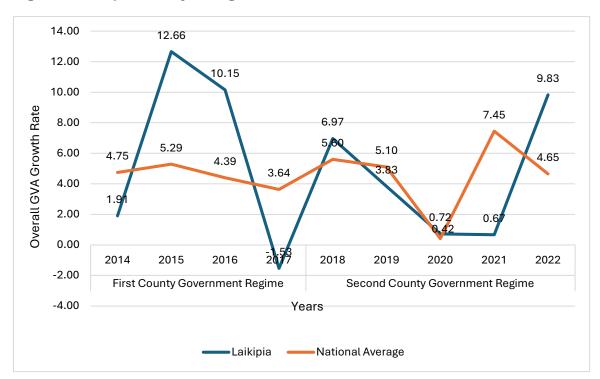


Figure 1: Laikipia County GVA growth rate

Data Source: KNBS 2023-Gross County Product

Sectoral Analysis of Laikipia County GVA

The services sector is dominant in Laikipia County with an average contribution to GVA of 61.06 per cent. The agriculture sector is second, contributing an average of 25.34 per cent to the GVA while the industry sector's contribution is about 13.63 per cent as shown in Figure 2.

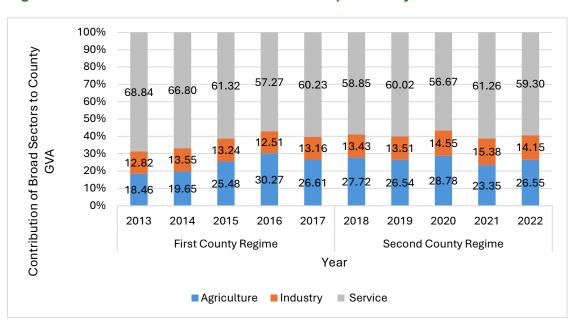


Figure 2: Contribution of broad sectors to Laikipia County GVA

Data Source: KNBS 2023-Gross County Product

Agriculture Sector

The average agriculture GVA growth rate (2013-2022) for Laikipia County is 19.04 per cent, which is above the national average of 12.71 per cent as shown in Figure 3.

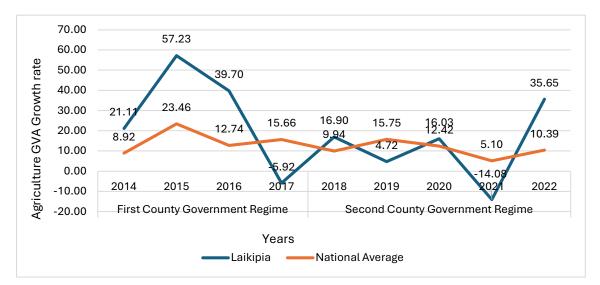


Figure 3: Laikipia County agriculture GVA growth rate

Data Source: KNBS 2023-Gross County Product

Agriculture in Laikipia County is mainly characterized by crop farming, mixed farming and agro-pastoral farming systems. Maize, the main staple food in the country is also the main food crop produced in Laikipia County. Despite this, there was a low maize production in 2013 and 2014, with recoveries in the subsequent years. From 2015 to 2020, the area under production showed slight fluctuations while production in metric tonnes remained relatively constant (Figure 4).

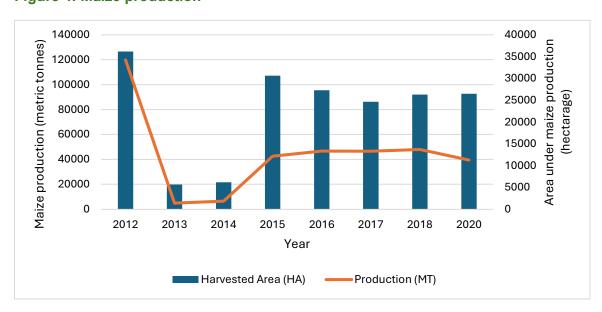
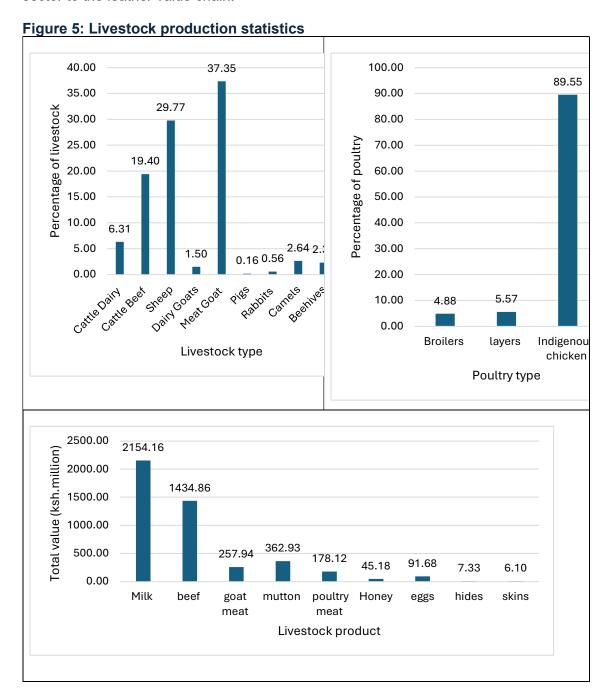


Figure 4: Maize production

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

Livestock production is an equally important economic activity in Laikipia County, here mixed farming, agro-pastoralism, and a smaller degree of pastoralism is practiced. The most common livestock kept are meat goats, sheep, and beef cattle. Dairy cattle are also substantive while camel rearing is also common. Poultry farming is also common and shows some level of diversification although indigenous chicken is the most commonly reared poultry type. Milk and beef have the highest economic value among the livestock products (Figure 5). Although the county has a significant number of livestock, marketed hides and skin have very low economic value indicating low integration of the livestock sector to the leather value chain.



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

Industry Sector

The average industry sector growth rate for Laikipia County is 13.77 per cent, which is above the national average of 10.58 per cent as shown in Figure 6.

25.00 20.19 18.48 Industry sector GVA growth 16.51 20.00 15.20 14.59 12.60 12.37 11.52 11.95 11.16 11.93 9.80 15.00 9.93 10.00 5.00 0.00 2014 2015 2016 2017 2018 2021 2022 2019 2020

Years

National Average

Second County Government Regime

Figure 6: Laikipia County industry GVA growth rate

Data Source: KNBS 2023-Gross County Product

Construction dominates the industry sector as shown in Figure 7.

Laikipia

First County Government Regime

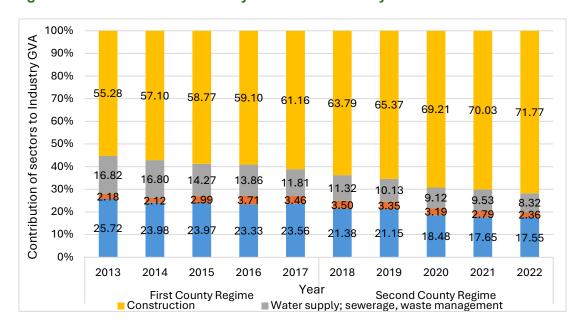


Figure 7: contribution of industry Sectors to Industry GVA

Data Source: KNBS 2023-Gross County Product

Services Sector

The average services sector growth rate is 8.96 per cent, which is below the national average of 11.13 per cent as shown in Figure 8.

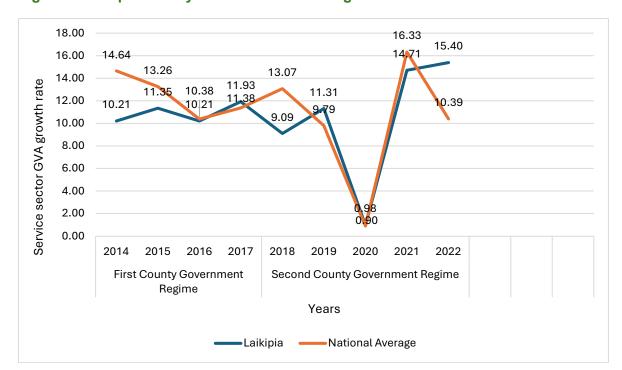


Figure 8: Laikipia County services sector GVA growth rate

Data Source: KNBS 2023-Gross County Product

The transportation and storage sub-sector dominates the services sector with the highest contribution to service GVA at 22.87 per cent. The wholesale and retail sub-sector is the second highest contributor to services GVA at 18.13 per cent. Public administration and defence is third at an average of 15.62 per cent as shown in Figure 9.

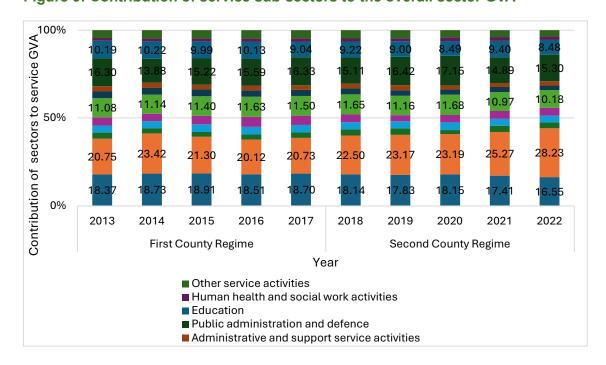


Figure 9: Contribution of service sub-sectors to the overall sector GVA

Data Source: KNBS 2023-Gross County Product

Quantity and Quality of labour Force for Laikipia County

Laikipia County has a total working-age population of 298,220, which is about 57.51 per cent of the total county population. The majority of the working-age population is youthful (18-34 years) at 46.32 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 working age (%) | of total population |
|------------------------|---------|---------|---------|----------------------------------|------------------------|
| 15-17 | 18,916 | 17,488 | 36,404 | | 12.21 |
| 18 –24 | 31,418 | 32,208 | 63,626 | | 21.34 |
| 25-34 | 36,097 | 38,403 | 74,500 | | 24.98 |
| 35-64 | 62,481 | 61,209 | 123,690 | | 41.48 |
| Total | 148,912 | 149,308 | 298,220 | | |

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

The majority of the population in Laikipia sub-counties are persons in the working age categories. Laikipia East has the highest percentage of persons of working age at 62.09 per cent as shown in Table 2.

Table 2: Sub-county distribution of working age population by age category

| Sub-county | Total Population population | Working age population categories | | | Working age population (15-64) as a | |
|------------------|-----------------------------------|-----------------------------------|-------------------|-------------------|--|--|
| | | 15-17 | 18 –24 | 25 –34 | 35-64 | percentage of the total sub-county population |
| Laikipia Central | 95,593 | 6,380 (11.01) | 10,4(18.09) | 13,583 (23.44) | 27,497 (47.45) | 57,944 (60.62) |
| Laikipia East | 102,810 | 6,450 (10.10) | 13,399 (20.99) | 18,277 (28.63) | 25,705 (40.27) | 63,831 (62.09) |
| Laikipia North | 36,183 | 2,648 (15.66) | 4,663 (27.57) | 4,608 (27.25) | 4,992 (29.52) | 16,991 (46.74) |
| Laikipia West | 129,260 | 9,497 (13.93) | 15,392 (22.58) | 16,792 (24.63) | 26,498 (38.87) | 68,179 (52.75) |
| Nyahururu | 154,696 | 11,429 (12.51) | 19,688 (21.55) | 21,240 (23.25) | 38,998 (42.69) | 91,355 (59.05) |

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

Laikipia County has high socioeconomic indicators that affect the quality of labour as reported in Table 3. However, interventions are required to increase literacy rates, children immunization rates, reducing stunting and child poverty.

Table 3: Human capital indicators

| Table 9: Haman capital malcators | | | |
|--|--------|------------------|--|
| Human capital indicators | County | National average | |
| Literacy rate | 77.60 | 78.41 | |
| Pre-primary net enrolment rate (2019) | 71.53 | 67.51 | |
| Primary school net enrolment rate (2020) | 80.20 | 77.72 | |
| Secondary school net enrolment rate (2020) | 59.30 | 54.18 | |
| Average years of schooling (2014) | 8.40 | 7.78 | |

| Percentage of children 12-23 months fully vaccinated (%) | 79.30 | 74.97 |
|--|-------|-------|
| Percentage of stunted children | 12.60 | 19.75 |
| Percentage of teenage pregnancy | 9.10 | 15.79 |
| Primary to secondary transition rates (2020) | 88.10 | 86.13 |
| Pupil-teacher ratio (primary school) | 24.00 | 28.28 |
| Food poverty headcount (%) | 27.00 | 33.63 |
| Child poverty headcount (%) | 35.70 | 42.67 |

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

Most of the essential infrastructure and capital indicators in Laikipia County are higher than the national average (Table 4). However, interventions are needed to increase access to improve water and sanitation as well as improve housing quality.

Table 4: Essential infrastructure and capital indicators

| Essential infrastructure Indicators | County | National Average |
|--|--------|------------------|
| Percentage of households with access to electricity (2019 Census) | 42.20 | 38.52 |
| Distribution of population using thei (2019 census) | 22.60 | 18.69 |
| Rural Access Index (2018) | 72.44 | 63.72 |
| Access to improved sanitation (2018) | 42.00 | 59.04 |
| Access to improved water (2018) | 64.20 | 65.33 |
| Financial inclusion level (2021) | 83.40 | 81.01 |
| The proportion of primary schools with internet | 35.85 | 27.65 |
| Proportion of secondary schools with functional internet | 43.60 | 35.13 |
| Percentage of households by housing material composite-finished materials(adequate) (2019) | 49.64 | 51.71 |
| Percentage of households using bank usage (overall) | 39.80 | 38.18 |
| Percentage of households using mobile money) | 79.20 | 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 69.19 per cent. The majority of those working is the non-youth working population (35-64 years) at 36.66 per cent while that of the youth (18-34 years) is 31.11 per cent. The percentage of the employed by gender is 45.90 for males and 46.40 for females. The unemployment rate is 7.08 per cent, with unemployment being slightly higher for the youth (18-34 years) at 4.37 per cent and those between 35-64 years at 2.49 per cent.

The percentage of persons (5-17 years old) working is 6.36 per cent indicating that the county has low levels of child labour. The inactivity rate is higher for the youth (15-24 years) at 18.75 per cent – which is expected as this age category is still schooling – while

low for persons of prime-age (25-64 years) at 3.67 per cent, which indicates high labour utilization.

Table 5: Laikipia County employment statistics

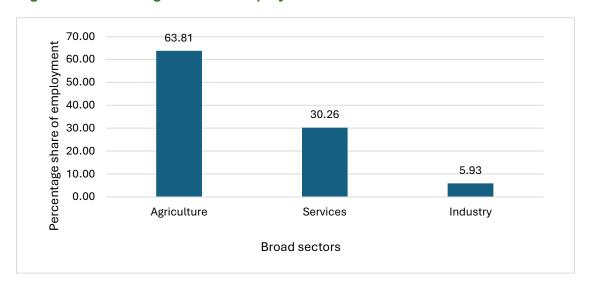
| Employment statistics | Youth | Non youth |
|------------------------------------|-------|-----------|
| Employment to population ratio (%) | 31.11 | 36.66 |
| Unemployment rate | 4.37 | 2.49 |
| Percentage of persons 5–17 years | 6.36 | |
| old working | 0.50 | _ |
| Inactivity rate | 18.75 | 3.67 |

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

Sectoral Employment

The agriculture sector is the highest employer in Laikipia County at 63.81 per cent followed by the services sector at 30.26 per cent. The industry sector is third at 5.93 per cent as shown in Figure 10.

Figure 10: Percentage share of employment in the broad sectors



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

Agriculture Sector

Crop production and mixed farming dominates the share of employment in the agriculture sector (Figure 11).

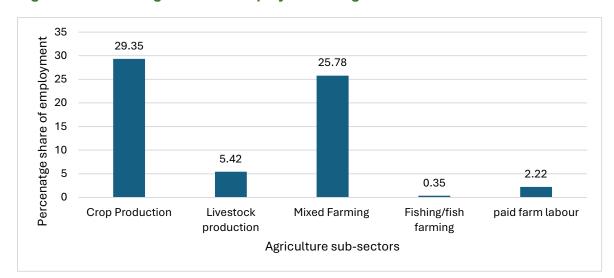


Figure 11: Percentage share of employment in agriculture sub-sectors

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

Industry Sector

The majority of those working in the industry sector are in construction with the main subsector being the construction of buildings as shown in Figure 12.

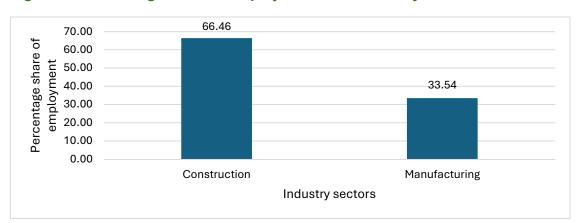


Figure 12: Percentage share of employment in the industry sectors

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

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 agroprocessing and printing as shown in Figure 13.

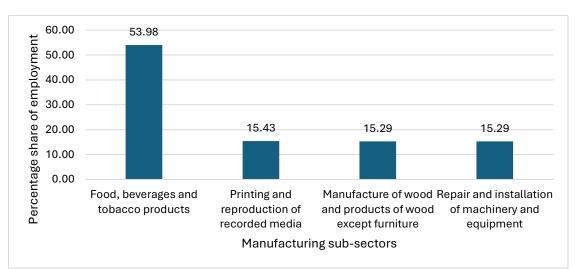


Figure 13 : Percentage share of employment in manufacturing sub-sectors

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

Services Sector

The majority of those working in the service sector are in wholesale and retail trade, and repair of motor vehicles and motorcycles as shown in Figure 14.

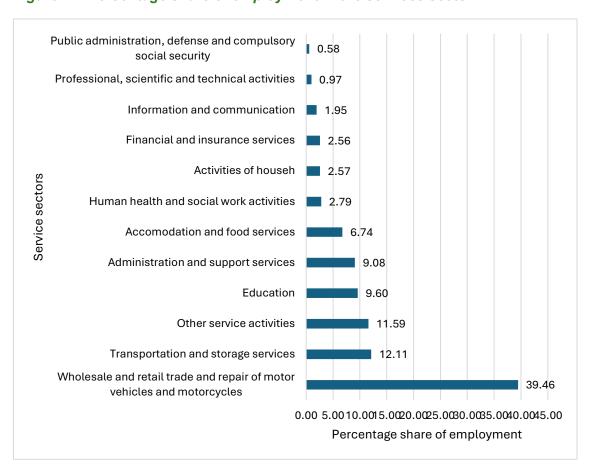
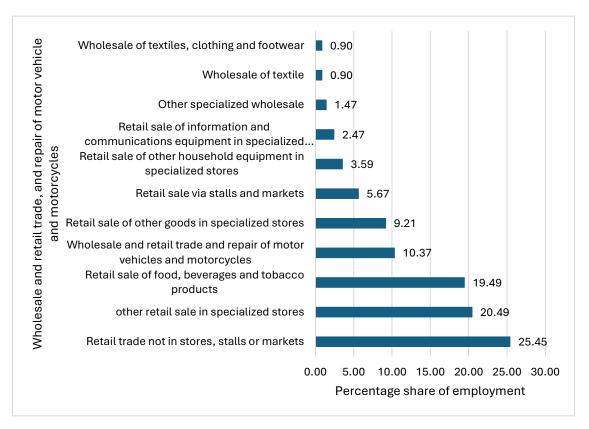


Figure 14: Percentage share of employment in the services sector

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

In the wholesale and retail trade, and repair of motor vehicles and motorcycles, the majority work in the retail trade not in stores, stalls, and markets as shown in Figure 15.

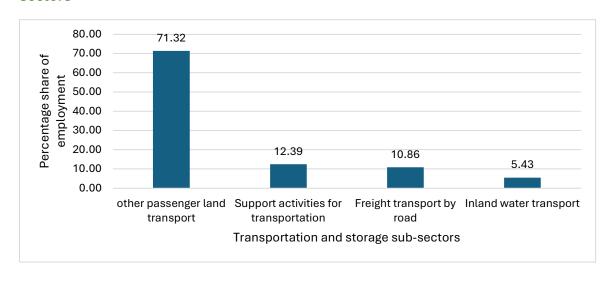
Figure 15: Percentage of persons employed in the wholesale and retail trade and repair of motor vehicle sub-sectors



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

In the transportation 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 transportation and storage subsectors



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

Labour Productivity

Labour productivity¹ for Laikipia County is slightly lower than the national average labour productivity (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 labour productivity followed by the services sector while the agriculture sector had the least labour productivity (Figure 18).

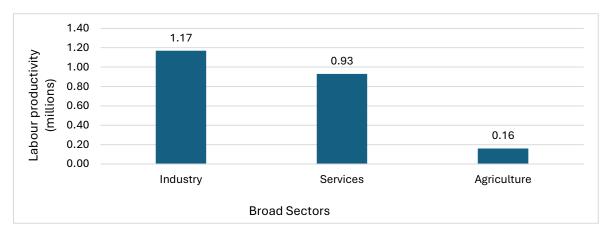


Figure 18: Labour productivity by sectors

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

Agriculture Sector

Maize productivity as measured by yields has been fluctuating over the years. The average maize yield for the eight (8) years under review is 1.69MT/HA, which is moderate compared with other counties within the county's aridity levels. This indicates that the county has potential for maize production but is facing constrains from drought and pests.

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

3.31 3.50 3.00 Maize yield (MT/HA) 2.50 1.89 1.82 1.71 2.00 1.49 1.39 1.50 1.05 0.88 1.00 0.50 0.00 2012 2015 2013 2014 2016 2017 2018 2020 Year

Figure 19: Maize yield (MT/HA)

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

Industry Sector

The construction sub-sector had the highest labour productivity in the industry sector as shown in Figure 20.

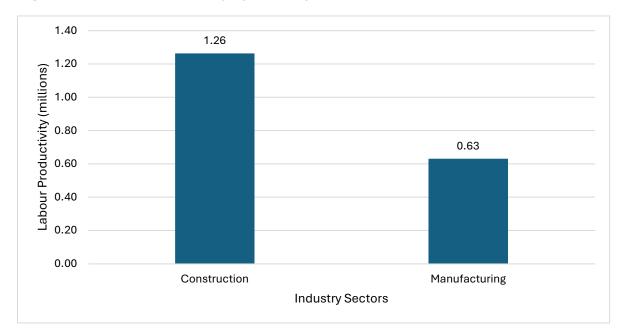


Figure 20: Labour productivity by industry sub-sectors

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

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 as shown in Figure 21.

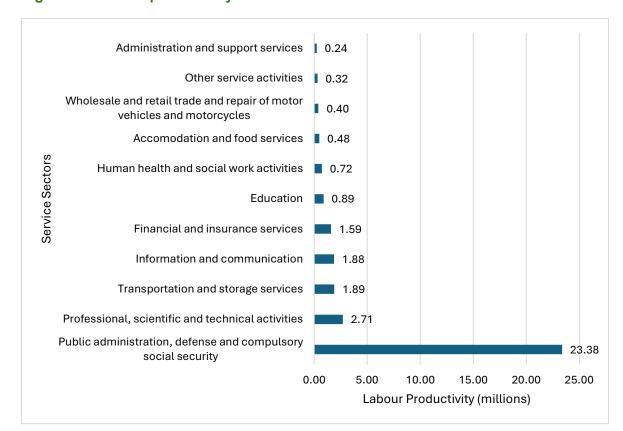


Figure 21: Labour productivity in services sector

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

Key Messages

- (i) The services sector is key in Laikipia County GVA. The county has potential in crop production but an advantage in livestock production, with high potential for beef and dairy farming. Despite the county having a significant number of livestock, marketed hides and skin have a very low economic value indicating low integration of the livestock sub-sector to the leather value chain. Construction dominates the industry sector while manufacturing has declined. The transportation and storage sub-sector dominates the services sector.
- (ii) The indicators of quality of labour are within national averages. However, interventions are required to increase literacy rates, children immunization rates, reducing stunting and child poverty. It is also critical to remain vigilant on persons of 5-17 years engaging in the labour market.
- (iii) Most of the essential infrastructure and capital indicators in the county are higher than the national average. However, interventions are needed to increase access to improved water and sanitation as well as improve housing quality. In addition is increasing access to electricity and internet connectivity.
- (iv) The agriculture sector is the highest employer, with crop production and mixed farming dominating. The majority of those working in the industry sector are in construction. Manufacturing also has significant employment with the majority employed in agro-processing and printing. The majority of those working in the service sector are in wholesale and retail trade with employment concentrated in the retail trade not in stores, stalls, and markets.

(v) Labour productivity in the county is slightly lower than the national average labour productivity. The industry sector had the highest labour productivity while the agriculture sector had the least labour productivity. The construction sector had the highest labour productivity in the industry sector while the public administration and defence had higher labour productivity in the services sector.

Policy Recommendations

- (i) Build climate resilience in agriculture. This can be achieved by facilitating the uptake of crop insurance and optimizing the utilization of information from the early warning systems to inform crop production to improve agricultural productivity.
- (ii) Transform agriculture by developing the livestock value chain to integrate the small farmers into the dairy and leather value chains; and building skills for farmers to adopt technologies that improve productivity in emerging activities including poultry and agriculture.
- (iii) Encourage investments in manufacturing to support 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.
- (iv) Secure the quality of future labour by implementing nutrition-sensitive social protection programmes to reduce child poverty and stunting. There is also a need to encourage participation in the adult and continuing education programme to improve the quality of the current labour force.
- (v) Invest in essential infrastructure prioritizing access to internet connectivity, electricity, improved water, sanitation as well as housing quality.
- (vi) Provide adequate market infrastructure to support wholesale and retail trading. Such infrastructure is to be adequately equipped with essential services.

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