

# Socio-Economic Status of Kiambu County with COVID-19

Eldah Onsomu, Rose Ngugi, Evelyne Kihui, Mutuku Muleli, James Gachanja, Rogers Musamali, Paul Lutta, Daniel Omany, Hellen Chemnyongoi, Shadrack Mwatu, Nahashon Mwongera, Paul Odhiambo, Beverly Musili, Violet Nyabaro, Japheth Kathenge, Haron Ngeno and Elton Khaemba

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**Kenya Institute for Public Policy  
Research and Analysis**

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## Abbreviations and Acronyms

|         |   |  |
|---------|---|--|
| ADPs    | - | Annual Development Plans                               |
| AFA     | - | Agriculture and Food Authority                         |
| AI      | - | Artificial Insemination                                |
| CIDC    | - | Constituency Industrial Development Centres            |
| CIDPs   | - | County Integrated Development Plans                    |
| DSA     | - | Drug and Substance Abuse                               |
| FAO     | - | Food and Agriculture Organization                      |
| GBV     | - | Gender Based Violence                                  |
| GCP     | - | Gross County Product                                   |
| GDP     | - | Gross Domestic Product                                 |
| HA      | - | Hectares   |
| ICTs    | - | Information Communication Technologies                 |
| ICU     | - | Intensive Care Unit                                    |
| KCB     | - | Kenya Commercial Bank                                  |
| KDHS    | - | Kenya Demographic Household Survey                     |
| KNBS    | - | Kenya National Bureau of Statistics                    |
| KNOCS   | - | Kenya National Occupational Classification Standard    |
| LREB    | - | Lake Region Economic Bloc                              |
| LVSR    | - | Low Volume Sealed Roads                                |
| M.I.C.E | - | Meetings Incentives Conferences and Exhibitions        |
| MSMEs   | - | Micro Small and Medium Enterprises                     |
| MT      | - | Metric Tonnes  |
| MTPs    | - | Medium Term Plans                                      |
| NGOs    | - | Non-Governmental Organizations                         |
| OSR     | - | Own Source Revenue                                     |
| PFM     | - | Public Finance Management                              |
| PPEs    | - | Personal Protective Equipment                          |
| RAI     | - | Rural Access Index                                     |
| SDGs    | - | Sustainable Development Goals                          |
| TVET    | - | Technical and Vocational Educational and Training      |
| UNICEF  | - | United Nations International Children’s Emergency Fund |
| UN      | - | United Nations   |
| WASH    | - | Water Sanitation and Hygiene                           |

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## Executive Summary

### **Fiscal Policy, Planning and Budgeting**

The county total revenue has significantly increased over the years as the Government focus on enhanced services to the citizens. In Kiambu County, total revenue increased from Ksh 7.8 billion in 2013/14 to Ksh 15.48 billion in 2020/21 with an average growth rate of 14.06 per cent. During 2020/21, the County received 100 per cent of the annual budget allocation, significant improvement from 91.4 per cent received in 2019/20. This highlights the commitment of the National Government to support county operations through timely financing. Conditional grants are a major source of revenue for financing county operations and has been growing over the years. The County receives conditional grants from the National Government and development partners mainly from World Bank and Danish International Development Agency (DANIDA), European Union (EU) and Sweden. The share of OSR to the total revenue has similarly been robust. Pending bills in Kiambu county generally follow an upward trend. In 2014/15 the county reported Ksh 609.0 million in pending bills. This increased to Ksh. 920.3 million in 2016/17 with development spending related pending bills accounting for 60.0 per cent of this. To steer the county towards achieving its budgetary objective and development goals contained in the ADPs and CIDP, the county government need to mobilize more finances from OSR to increase the available revenues for budgetary operations, seek for more funding in form of grants from development partners to cater for the critical development projects in the county, ensure that the ongoing projects are completed before launching new project and clear any pending bills and arrears owed to suppliers and ensure the ongoing infrastructure project are completed and suppliers paid within the specified timelines for optimal returns to investment and to spur private sector activity.

### **Agriculture, Livestock and Fisheries**

Crop and livestock farming account for a significant share of the economic activity in the County. Key agricultural value chain commodities in the County include: - maize, beans, potatoes, kales, bananas, cabbages, avocado, coffee, tea, macadamia, cattle, sheep, goats, poultry production, pig farming and donkey keeping. Among the socioeconomic effects on the COVID-19 pandemic on the agri-food sector in the County included negative effects on hours worked by in agriculture related occupations. An additional effect was a slow down on trade and marketing activities due to the restrictions on movements leading to price shocks and shortages of food items. Agricultural productivity in the County is also affected by:- variable and extreme weather events; Dependence of rain fed agriculture; low agro-processing and value addition opportunities; land fragmentation; low access to quality and affordable inputs; low crops, livestock, and livestock products marketing opportunities; Poor access to agricultural finance ; low access to major off-farm services including

extension, climate and market information, and credit services; and pests and livestock diseases; and farm losses and post-harvest waste. To successfully build resilience and enhance growth of the agriculture sector, the County will: explore partnerships to develop agro-processing and value addition capacities at the County; enhance access to storage and cooling facilities; enhanced commercialization opportunities among small holder farmers; invest in sustainable irrigation and water harvesting technologies; link farmers to diverse product markets; Strengthen the County's institutional capacity in disaster surveillance and management; enhance farmers access to critical agricultural inputs and services and build their technical capacity to act on information obtained; and strengthen agricultural cooperatives.

### **Water Sanitation and Hygiene (WASH)**

Clean water, proper sanitation and good hygiene remains an essential component in protecting human health in times of outbreak of infectious diseases. Frequent and correct hand hygiene has been emphasized by World Health Organization (WHO) as one of the frontline measures to curb transmission of COVID-19. This has placed a higher demand for water use in households, schools, health care facilities, marketplaces, workplaces, and public places. This therefore has necessitated the need for provision of water, sanitation, and hygiene by national and county governments to all. The county government faced challenges in revenue collections with COVID-19 has resulted into reduced incomes among households and businesses, thus deferring collection of revenue from the water services it provides as well as financial support to water services providers. This in the long run could affect the development of the water and sanitation sector. Additionally, COVID-19 poses health challenges to water and sanitation officers if they get infected, they have to be self-isolated, and this may lead to disruption of services. Other constraints to the sector include, drought, water leakages and destruction of water catchment areas. To ensure continuous availability of water, the national and county government to increase water supply in households, institutions, and public places through drilling of boreholes in all the sub-counties. Partner with private sector, donor agencies, local communities, and NGOs to help develop water infrastructure.

### **Manufacturing, Trade and MSMEs**

The momentum in manufacturing, trade and MSMEs was disrupted by the COVID-19 pandemic as the containment measures associated with COVID-19 pandemic took a heavy toll on the sector. The measures that were taken, such as closure of markets, observance of health protocols in form of social distancing and handwashing served to increase the cost of production and affected access to markets for the produce.

In sustaining growth in the Manufacturing, Trade and MSMEs sector, the County will: Increase of market share of products and services in the NMR, regional and international markets; Develop and rehabilitation of key infrastructure in underserved locations; Leverage on NMR spur and expand its service industry; Improve the business operating environment.; Provide world class infrastructure facilities and utilities to support manufacturing value addition investments and human settlements; Integrate ICT in

the development and management of infrastructure and utilities; Leverage on the Jomo Kenyatta International Airport, Wilson Airport, and the Standard Gauge Railway as transport and logistics hubs; Ensure a safe and secure county supportive of endeavours of residents, visitors and investors; Invest in the Conservation of the Environment for Sustainable Development; and Conserve wildlife and forest resources; and Concentrate on urban based economic activities such as industrial and manufacturing of garments, textiles, fisheries and tea, ICT, knowledge-based services and biotechnology targeting global/ international markets.

## **Infrastructure, Housing, and Urban development**

The main means of transport used in the County is walking followed by PSV matatus. The paved County Road network covers 432.61 km, while the paved National roads cover 631.72 km. Out of the total paved road network of 1064.33 km, 90.1 per cent is in good condition, 2.7 per cent in fair condition and 7.2 per cent in poor condition. The status of ICT access and use in the county was low, especially among households. The housing tenure is predominantly owner occupied at 37.1 per cent, with 62.9 per cent of the households under rental tenure. The county has challenges in quality of the housing stock.

In addressing the prevailing challenges, the county to Identify county significant infrastructure projects, with project speed emphasis, for implementation to support economic recovery; collaborate with IT personnel in Universities to support the development of ICT competence and skills among the public and bolster a digital economy; avail appropriate building technology for use by the public in house construction and improvement in every sub-county, that responds to local cultural and environmental.

## **Tourism**

Kiambu County has several tourist attractions sites which include Kereita forest and Great Rift Valley Viewpoint; PCEA Church of the Torch; Ondiri Swamp; Watson Memorial; Chania Falls, Fourteen falls, Mugumo Gardens and Aramati Thigira Cultural Centre; Old Italian Church; Italian Prisoners of War; Paradise Lost recreation centre; Mau Mau Caves; Gatamaiyu Fish Camp; various Historical sites in Gatundu and Githunguri Sub Counties. The main activities in these sites are site seeing, sports / boat riding, viewing of the Great Rift Valley, zip lining, hiking trails, social activities among others. The county does not have national parks or game reserves.

The County's attractions sites attract many tourists annually. The leading sites are Kereita forest, Chania and Fourteen Falls, Mau Mau Caves with the greatest number of visitors being domestic tourists. The tourism sector was greatly affected by the COVID-19 pandemic. The County government need to re-engineer and recover the tourism sector by undertaking different policy measures.

## **Health**

There is a total of 364 health facilities spread across the county. Under the public facilities,

the county has 1 level-five hospital namely Thika District Hospital, 3 level-4 in Gatundu South, Kiambaa and Kikuyu Constituencies, 4 level-three in Gatundu North, Juja, Kiambaa and Limuru Constituencies. There are 20 level-two (Health Centres) and 54 level-ones also known as dispensaries which are well distributed within the county. The rest of the facilities are private with 17 Mission Hospitals, five nursing homes, 36 dispensaries and 169 private clinics. The doctor/population ratio in the county is 1:17,000 and the nurse/population ratio stands at 1:1,300. The average distance to the health facility is seven Km and the facilities are well accessed since the road network is good.

COVID 19 had worsened the health situation as far as youths and women were concerned. These are the groups of people that have been facing several challenges even before the outbreak of the COVID 19. Gender based violence cases had increased with the lock down. Youths who were entrepreneurs had also been affected losing jobs and businesses due to the lockdown. Other problems facing youths includes: Teenage pregnancies, malnutrition, STI/HIV and Aids, poor environment, drug and substance abuse and malnutrition.

## **Education and Training**

Kiambu County has over 513 pre-primary centres, 1225 primary and 303 secondary schools. Infrastructures are in place to support water and sanitation efforts in learning institutions by the county. The county has rolled out plans to provide hand washing facilities in schools.

There were 1,225 primary schools in Kiambu County out of which 576 are public and 349 are private. The total number of primary school teachers was 21,090 and the teacher to pupil ratio was 1:38. The total enrolment rate was 295,409 pupils comprising of 115,375 males and 113,910 females. The gross enrolment rate was 109.2 per cent, while the net enrolment rate was 91.3 per cent.

The County with support from stakeholders would continue to invest in early childhood development through infrastructural development to allow for adequate social distancing; deployment of ECDE teachers and provision of sanitation facilities. The County to provide financial or in-kind support, such as school feeding, to help families overcome the increased costs of attending school, and provide psychosocial support to teachers and learners during and after the pandemic.

## **Social Protection**

The County has many vulnerable members in the society such as the elderly, youths, PWDs and those living with HIV AIDS. According to the KNBS census 2019, Kiambu county has a population of 2,417,735 of which 3.6 per cent are the elderly and 2.1 per cent are people living with disabilities. The overall poverty rates in the county stand at 19% which is lower than the national average (36.1 per cent). Despite being an agricultural county, the county's food poverty levels are at 23 per cent and 23 per cent of the total population is multidimensionally poor. Further, about 16 per cent of the children population is stunted. It will be important for the County to build linkages with other Ministries, and with NGOs that work with vulnerable groups to strengthen families, deliver assistive devices, reduce barriers to access and provide vocational training. Undertake research to get a better

understanding of the actual situation of disability and chronic illness in the County, and to map existing initiatives on social protection

## **Labour Participation**

Agriculture is the predominant economic activity in the county. It is the leading sub sector in terms of employment, food security, income earnings and overall contribution to the socio-economic well-being of the people. Majority of the people in the county depend on the sub sector for their livelihood. Coffee and tea are the main cash crops in the County. Other food crops grown in the county are maize, beans, pineapples and Irish potatoes. These are mainly grown in small scale in the upper highlands of Limuru, Kikuyu, Gatundu-North and South Constituencies. Due to dwindling availability of formal jobs in the county, most of the people have reverted to self-employment which contributes to 31 per cent of households' income in the county. In rural areas, 157,473 persons are self-employed whereby they engage in agricultural activities for their livelihoods. On the other hand, 384,935 of the persons in urban centres are self-employed, having set up businesses and small-scale industries.

The County need to enhance investments and mechanisms for up skilling and reskilling, deepening technical skills as well as ICT skills; and retraining employees on how to work from home, where applicable. The county government need to protect workers in the informal economy by pursuing innovative policies including non-contributory and contributory social security schemes and facilitate transition to the formal economy in the longer term.





# 1. Introduction and Structure of Kiambu County Economy

## 1.1 Introduction

Kiambu County is one of the counties in the Central Region Economic Bloc (CEREB). The county occupies a land area of 2,543.5 Km<sup>2</sup>. The county has an estimated population of 2,417,735 people of whom 49.1 per cent are male and 50.8 per cent female (KNBS, 2019) as indicated in table 1.1. Of the population 44,519 (2.1 per cent) are persons with disabilities. The youth constituted 40.0 per cent of the population of whom 52.0 per cent were female. The County has a population density of 952 per km<sup>2</sup>. About 29.4 per cent of the population live in rural areas of whom 50.0 per cent are female. The elderly population (age 65 year and above) make up 3.6 per cent of the total population of whom 56.8 per cent were female. The population in school going age group (4-22 years) was 36.6 per cent in 2019.

In 2015/2016, the overall poverty rate in Kiambu County was 23.0 per cent against the national poverty rate of 36.1 per cent. In addition, 27.5 per cent of the population were living in food poverty and 18.9 per cent were living in multidimensional poverty, that means being deprived in several dimensions including health care, nutrition, and adequate food, drinking water, sanitation and hygiene, education, knowledge of health and nutrition, housing and standard of living, and access to information. According to KDHS 2014, 15.7 per cent of the children were stunted as compared to the national average level at 26.0 per cent.

**Table 1.1: Development indicators in Kiambu County**

|   | County    | National                          |
|---|-----------|-----------------------------------|
| Estimated County Population (KNBS, 2019)        | 2,417,735 | 1.1 per cent of total population. |
| Males   | 1,187,146 | 49.1%                             |
| Females   | 1,230,459 | 50.8%                             |
| Intersex  | 135       | 0.005 %                           |
| Estimated Population Density (km <sup>2</sup> ) | 952       | 82                                |
| Persons with disability                         | 2.1%      | 2.2%                              |
| Population living in rural areas (%)            | 29.4%     | 68.8%                             |
| Children (0-14 years) (%)                       | 32.5%     | 41.1%                             |
| School going age (4-22 years) (%)               | 36.6 %    | 68.7%                             |
| Youth 15-34 years (%)                           | 40.0 %    | 36.1%                             |
| Labour force (15-64 years) (%)                  | 63.8%     | 55.0%                             |
| Elderly population (over 65-year old)           | 3.6 %     | 3.9%                              |

|   |                |   |
|---|----------------|---|
| Number of COVID-19 cases (as of 11 <sup>th</sup> September 2020) (MOH); National cases were 35,232 people | 2,427          | 7.2% of the national cases                  |
| Poverty (2015/2016) (%)   | 23.0%          | 36.1%                                       |
| Food Poverty (2015/2016) (%)  | 27.5 %         | 31.9%                                       |
| Multidimensional Poverty (2015/2016) (%)  | 18.9%          | 56.1%                                       |
| Stunted children (KDHS 2014)  | 15.7 %         | 26%   |
| Gross County Product (Ksh million)  | 553,312 (2020) | 5.9% average share to total GDP (2013-2020) |
| Average growth of nominal GCP (2013-2020) (%)   | 13.1 %         | 15.0%                                       |

Data Source: KNBS (2019)

The age distribution of the county residents as per the 2019 Housing and Population Census is shown in table 1.2. The bulk of the County's population is in the age group of between 15-34 years comprising of 963,571 individuals. They are followed by persons aged between 6-13 years who are the primary school children comprising of 376,543 of the county population. The under 0-3 age comprise of 226,542 of the county population. This shows that the county has a general youthful population.

**Table 1.2: Population distribution for selected age groups in the County (2019)**

| Age Group                          | Male    | Female  | Total   |
|------------------------------------|---------|---------|---------|
| Under 0-3                          | 114,009 | 112,533 | 226,542 |
| Pre-primary school age (Under 4-5) | 50,934  | 49,705  | 100,639 |
| Primary School Age (6 -13)         | 187,743 | 188,800 | 376,543 |
| Secondary school age (14-17)       | 83,923  | 86,691  | 170,614 |
| Youth Population (15-34)           | 459,709 | 503,862 | 963,571 |
| Female Reproductive age (15-49)    |         | 718,916 | 718,916 |
| Labour force (15-64)               | 775637  | 808607  | 808,607 |
| Aged Population 65+                | 37,149  | 48,888  | 86,037  |

Data Source: KNBS (2019)

## 1.2 Level of Socio-Economic Deprivations

In 2015/2016, 25.6 per cent of the population had health insurance cover, 52.7 per cent lived in premises with water, 44.8 per cent lived in their own homes and 83.7 per cent had access to mobile telephone (Table 1.3) and majority of the households (99.8 %) had access to toilet facility. As a result, the multi-dimensional poverty is estimated at 18.9 per cent.

**Table 1.3: Level of deprivations for the various indicators for multidimensional poverty in the county.**

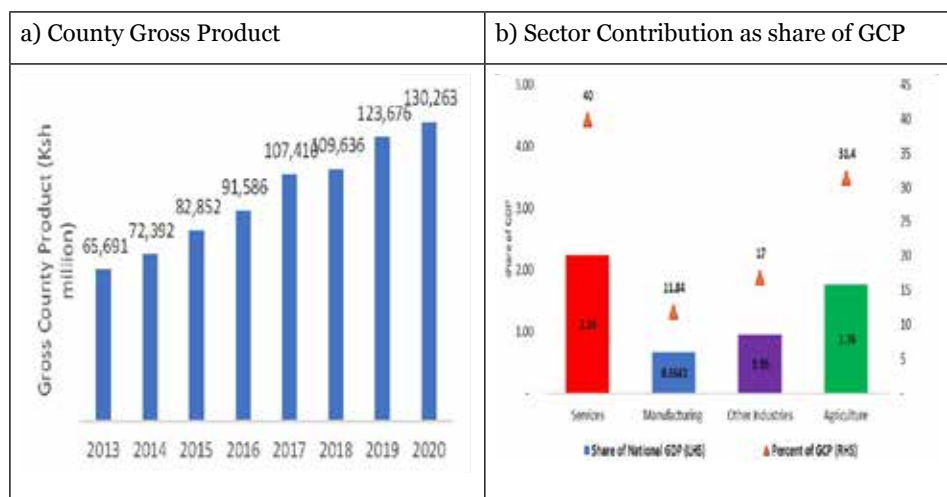
| Indicator   | Details  | Percentage Distribution (%) |
|---|--|-----------------------------|
| Health care   | Population with Health Insurance Cover                 | 25.6                        |
| Drinking water (Time taken to fetch)  | Zero (In premises)                                     | 52.7                        |
|   | less than 30 minutes                                   | 45.5                        |
|   | 30 minutes or longer                                   | 1                           |
| Sanitation and Hygiene  | Proportion of households with toilet facility          | 99.8                        |
|   | Shared Toilet  | 58                          |
|   | Not Shared   | 42                          |
|   | Place to wash hands outside toilet facility            | 41.1                        |
|   | No place to wash hands outside toilet facility         | 58.9                        |
| Education (Population 3 years and Above by School Attendance Status)  | Ever Attended  | 96.3                        |
|   | Never Attended   | 3.7                         |
| Knowledge of health and nutrition (children aged 0-59 months that participated in Community Nutrition Programmes) | Participated in Community Nutrition Programmes         | 56.7                        |
|   | Did not Participated in Community Nutrition Programmes | 43.3                        |
| Housing and standard of living (house ownership)  | Owner Occupier   | 44.8                        |
|   | Pays Rent/ Lease                                       | 51.6                        |
| Access to information (Population Aged 3 years and above by ICT Equipment and Services Used)                      | Television   | 81                          |
|   | Radio  | 91.1                        |
|   | Mobile phone   | 83.7                        |
|   | Computer   | 14.4                        |
|   | Internet   | 24.3                        |

Source: KIHBS 2015/2016

### 1.3 Structure of Kiambu County Economy

Kiambu County accounted for 5.9 per cent of the of total Gross Domestic Product (GDP) and increased by an annual average of 13.1 per cent between 2013 and 2020. The economy remains heavily reliant on services that accounts for 40 per cent of the GCP (Figure 1b). Agriculture accounts for 31.4 per cent and other industries 17 per cent of the GCP. Looking at Figure 1a, it reveals that there has been an upward trend in terms of GDP. It increased from Ksh 288,907 million in 2013 to Ksh 553,312 million in 2020. This increase is explained by the devolution. With devolution, the county was able to improve infrastructure, create good business environment and efficient collection of revenue were the contributing factor to continued increase in GDP for the said period.

**Figure 1.1: Structure of the county economy, 2013-2020**



Data Source: KNBS (2022)

#### 1.4 COVID-19 caseload and implications of mobility restrictions

As of March 2020, Kiambu County had zero cases. However, by August 2020, the County had reported 777 COVID-19 cases with mobility stringency of 70.4. The caseload would rise to 11,314 by August 2021 with mobility stringency of 56.0. The mobility stringency index is a composite measure rescaled to a value from 0 to 100 (100=strictest) based on nine response mobility indicators. The nine metrics used to calculate the mobility stringency index include school closures, workplace closures, cancellation of public events, restrictions on public gatherings, closure of public transport, stay-at-home requirements, public information campaigns, restrictions on internal movements and international travel controls. An index measure closer to 100 means high incidence or severity of mobility restrictions. The County mobility stringency index implies the severity of the restrictions was moderate.

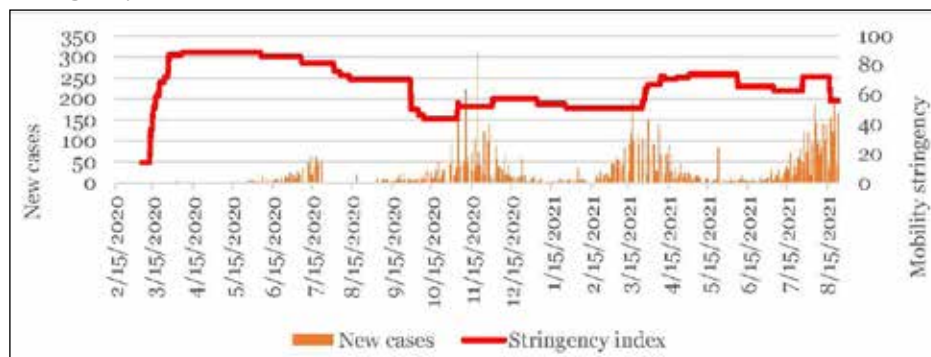
**Table 1.4: Total COVID-19 cases and mobility stringency - Kiambu County**

| Date                         | Total cases | Mobility stringency (0-100) |
|------------------------------|-------------|-----------------------------|
| 13 <sup>th</sup> March 2020  | 0           | 36.1                        |
| 23 <sup>rd</sup> August 2020 | 777         | 70.4                        |
| 23 <sup>rd</sup> August 2021 | 11,314      | 56.0                        |

Data Source: Oxford University

New COVID-19 cases in Kiambu County were highest between June 2020-July 2020, October 2020-December 2020, March 2021-May 2021, and July 2021-August 2021. During the four time-periods, spikes in new cases in the County were preceded by relaxation of COVID-19 mobility restrictions. Reduction in the County's new cases was similarly preceded by tightening of mobility restrictions.

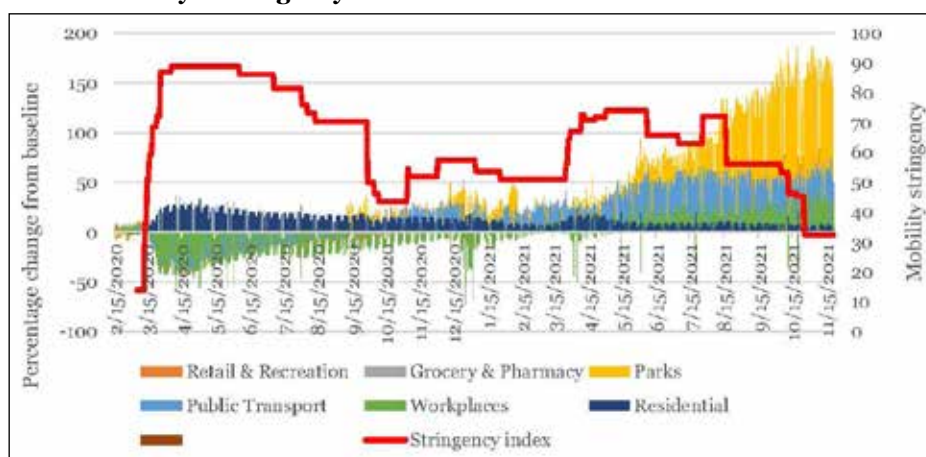
**Figure 1.2: New COVID-19 cases in Kiambu County and the country's stringency index**



Data Source: Oxford University

Demand for residential space, public transport, parks, and workspaces has remained resilient throughout the COVID-19 period in Kiambu County. Growth of the sub-sectors has been highest since October 2021 when mobility restrictions were vacated.

**Figure 1.3: Effect of COVID-19 on economic performance in Kiambu County and the country's stringency index**



Data Source: Oxford University

The broad objective of the report is to analyze the socioeconomic effects of COVID-19 across sectors and propose interventions for mitigating the effects. The report is organized as follows. Chapter 2 focuses on fiscal policy; Chapter 3 focuses on agriculture, livestock and fisheries; chapter 4 focuses on water sanitation and hygiene; chapter 5 focuses on manufacturing, trade and MSEs; chapter 6 focuses on transport and information and communication technology; chapter 7 focuses on urban development; chapter 8 focuses on tourism, chapter 9 focuses on health; chapter 10 focuses on education and training; chapter 11 focuses on social protection; chapter 12 focuses on labour participation and chapter 13 concludes the report.

## 2. Fiscal Policy

Financial resources are key in achieving the county's strategic plans. The County's main revenue sources comprise of the transfers from the National Government, Conditional Grants and its own source revenue (OSR).

### *Transfers from National Government*

The county total revenue has significantly increased over the years as the Government focus on enhanced services to the citizens. In Kiambu County, total revenue increased from Ksh 7.8 billion in 2013/14 to Ksh 15.48 billion in 2020/21. The amount realized in 2020/21 was 86.8 per cent of the annual budget allocation of Ksh 17.88 million, a slight improvement from 85.2 per cent attained in 2019/20. This was supported by the 100 per cent disbursement of equitable shares and conditional grants from the National government.

Equitable share from the National Government is the main source of county revenue and accounted for more than 60 per cent of total revenues over period under review, save for 2019/20 when it accounted for 57.62 per cent (figure 2.1). The share of equitable share has declined from a high of 72.01 per cent in 2016/17 to 57.62 per cent in 2019/20 due to the increase in the share of conditional grants and its OSR. Despite the decline in the share of equitable share to total revenue, nominal value has grown by 73 per cent from Ksh 5.45 billion in 2013/14 to Ksh 9.41 billion in 2020/21. During 2020/21, the County received 100 per cent of the annual budget allocation, significant improvement from 91.4 per cent received in 2019/20. This highlights the commitment of the National Government to support county operations through timely financing.

**Figure 2.1: Share of county revenues by source: Share of county revenues by source**



Data Source: Office of the Controller of Budget (Various reports)

Monthly cash transfers from the National government indicate an increasing trend from

January to June over the years as shown in Table 2.1. A similar trend was observed in 2020 with the transfers growing by 139.73 per cent from Ksh 4.58 billion in January to Ksh 10.98 billion in June. The increment was timely as the County implemented measures to curb the spread of COVID-19 and its planned operations. In comparison to 2019, the total amount transferred to Kiambu County in March, April, May, and June of 2020 declined by 16.4 per cent from Ksh 39.02 billion to Ksh 32.62 billion.

**Table 2.1: Monthly cash transfers from National Government (Ksh million)**

| Year | Jan      | Feb       | Mar      | Apr        | May      | Jun       | Oct      | Nov      | Dec      |
|------|----------|-----------|----------|------------|----------|-----------|----------|----------|----------|
| 2021 | 4,931.04 | 5,819.48  | -        | -          | -        | -         | 2,929.38 | -        | -        |
| 2020 | 4,580.90 | 5,806.04  | 6,654.90 | 7,452.17   | 7,535.05 | 10,986.01 | 2,367.56 | 3,749.44 | 4,663.17 |
| 2019 | 6,758.61 | 76,542.83 | 8,512.63 | 870,681.35 | 9,505.39 | 12,301.77 | 9,505.39 | 2,524.61 | 3,669.74 |
| 2018 | 4,314.15 | 5,155.54  | 6,919.20 | 7,725.33   | 8,666.02 | 10,543.86 | 1,999.36 | 2,951.28 | 5,773.00 |
| 2017 | -        | -         | 5,699.30 | 6,378.94   | 7,104.51 | 8,455.92  | 2,317.64 | -        | -        |
| 2016 | -        | -         | 5,278.22 | 5,905.01   | 7,189.30 | 7,189.30  | -        | -        | -        |

Data source: Gazette Notice (Various issues)

### Conditional grants

Conditional grants are a major source of revenue for financing county operations and has been growing over the years. The County receives conditional grants from the National Government and development partners mainly from World Bank and Danish International Development Agency (DANIDA), European Union (EU) and Sweden. During 2020/21, the County received Ksh 782.06 million and Ksh 914.75 million from National Government and Development partners respectively. The contribution of condition grants to total revenue has been robust. On average, the grants contributed 9.63 per cent of the County total revenue between 2013/14 and 2020/21. In nominal terms, conditional grants have been on an upward trajectory, growing by 111 per cent from Ksh 805.58 million in 2014/15 to Ksh 1.69 billion in the 2020/21. As such, continued good relations with development partners and adherence to the conditions of the grants is key to access more funding inform of grants.

### Own Source Revenue

The share of OSR to the total revenue has similarly been robust. On average, OSR contributed 17.97 per cent to total revenues between 2013/14 and 2020/21 (Figure 2.1). Notably, it contributed 23.58 per cent of the total revenues, an all-time high in 2019/20. The strong performance registered indicates some level of resilience in OSR collections amidst the adverse effects of COVID-19 pandemic experienced.

The performance of the annual OSR depicted fluctuating trends over the years (figure 2.2). The ratio of OSR target versus the actual OSR indicate that the county achieved more than 60 per cent of its target all the years except for the 2017/18 when it achieved 52.48 per cent (Figure 2.2). During 2018/19 the County achieved its OSR target, implying that the County has made significant reforms in mobilizing OSR. In the 2019/20, the county generated Ksh 2.47 billion as OSR, which was a 10.1 per cent decrease compared to Ksh 2.74 billion realized in 2018/19. The decrease was premised on the adverse effects of COVID-19



pandemic that slowed down economic activities. Similarly, during 2020/21, the county generated Ksh 2.43 billion representing a decrease of 1.7 per cent compared to the amount realized in 2019/20. It is expected that as the Country move towards economic recovery, the OSR performance will improve as well.

**Figure 2.2: Annual own source revenue targets and actual collections**



Data Source: Office of the Controller of Budget (Various reports)

The county collected the highest revenues during the third and fourth quarter, premised on the payments of single business permits (figure 2.3). In 2019/20, the County realized low collections during the first and second quarter, with significant improvements in the third. However, during the fourth quarter of 2019/20, the generated OSR declined by 31.5 per cent from Ksh. 1.89 billion realized during the third quarter to Ksh. 570.61 million. This was partly due to economic disruptions resulting from containment measures undertaken to manage the spread of COVID-19. During 2020/21, the quarterly collections remained low compared to other financial years because of low economic activities across the Country as the pandemic heightened. With the ease of containment measures across the country, the OSR performance is expected to improve as well.

**Figure 2.3: Quarterly own source revenue collection**



Data Source: Office of the Controller of Budget (Various reports)

## 2.1 County Expenditure Analysis

Economic and political crises, natural disasters (such as droughts and flooding), security challenges and health crisis (such as the COVID-19 pandemic) highlight the consequential risks and underlying vulnerabilities in national and county level budgetary and planning system. These can substantially affect public resources and in cases of weaker planning systems they may impact the nature and level of service delivery to the citizen.

The UN Sustainable Development Goals (SDGs) emphasize the productive role of targeted and strategic county level expenditure. The 2014 UN Secretary General's Synthesis Report on the Sustainable Development Goals (SDGs) states that "many of the investments to achieve the sustainable development goals will take place at the sub-national level and be led by local authorities"<sup>1</sup>. It is at the counties that economic activity takes place and when spending priorities and execution are done just right then the county and country will be set to the desired development trajectory.

Despite their constrained fiscal autonomy (such as inability to borrow funds) and relatively small budgets, the county government has a key role to play in promoting growth as espoused in the Kenya Constitution. This is particularly the case with development expenditure, which is within the assigned remit of county as per the PFM Act of 2012 and is key to the county's future growth prospects given several decades of under-investment which have constrained productive capacity in the local economy.

### *Trends and profile of county government expenditures*

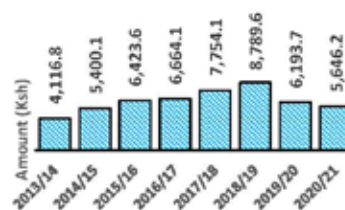
County expenditure has over the years been rising as the county escalates its efforts in provision of services to its residents. Between 2013/14 and 2019/20, actual expenditure in the county increased from Ksh 6,682.7 million to Ksh. 13,651.1 million in 2020/21 (Figure 2.4). This translates to over 100 per cent increase in county spending in that the period. Cumulatively the county has spent a total of Ksh. 89.6 billion over the review period. This comprises of a cumulative Ksh. 67.6 billion and Ksh. 22.3 billion on recurrent and development expenditures representing 75.2 per cent and 24.8 per cent of the cumulative recurrent and development expenditure respectively. This signals that most development expenditure performance is required to support deepening of capital spending in the county.

**Figure 2.4: County expenditure analysis**

**Figure 2.4a: Trends in actual aggregate expenditure**



**Figure 2.4b: Trends in actual per capita expenditure**



*Data Source: Office of the Controller of Budget*

Consistent with the nominal growth in actual county expenditures, spending on a per capita  
<sup>1</sup> UN General Assembly (2014), p. 22, par. 94.

basis has more than doubled over the period. In 2013/14, per capita spending in the county was about Ksh 4,116.8 compared Ksh. 5,646.2 2020/21. Between 2013/14 and 2020/21 per capita spending averaged Ksh 6,373.5.

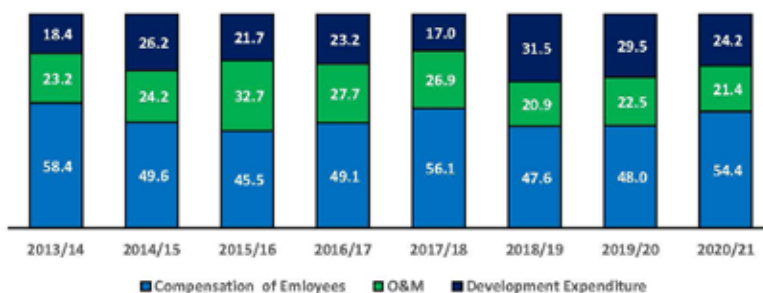
### **Utilization of public resources in the county**

Analysis of expenditures by economic classification and by departments (spending priorities) reveals since inception of devolution, the county government prioritized narrowing the economic and social infrastructure gaps. Much of government spending has mainly been on provision of health services, roads, transport and public works as well as agriculture, livestock and fisheries.

Between 2013/14 and 2020/21 the average development spending accounted for 24.0 per cent of total expenditure. In 2013/14 development expenditure accounted for 18.4 per cent. This increased to 26.2 per cent in 2014/15, declined 21.7 per cent in 2015/16 and increased to 23.2 per cent in 2016/17 before plunging to 17.0 per cent in 2017/18. Development spending as a share of total spending reached 31.5 per cent in 2018/19 as presented in Figure 2.5 and declined slightly to 29.5 per cent at the end of 2019/20 and further down to 24.2 per cent, reflecting the needed intensity of capital expenditure deepening in the county.

Performance of development spending and compensation of employees exhibit converse relationship. In the periods when development spending was rising, compensation of employees was declining and vice versa as depicted in Figure 2.5. For Kiambu county, compensation of employees on average accounted for 51.1 per cent between 2013/14 and 2020/21. In 2013/14 it accounted for 58.4 per cent of total expenditure declining steadily to 45.5 per cent in 2015/16 before picking up to 49.1 per cent in 2016/17 and 56.1 per cent in 2017/18. In 2018/19 compensation of employees accounted for 47.6 per cent while at the end of 2019/20 compensation of employees accounted for over 48.0 per cent of county expenditure. In 2020/21 compensation of employees exceeded half of county expenditure.

**Figure 2.5: County government expenditure by economic classification (Per cent of total county government expenditure)**



Data Source: Office of the Controller of Budget

Reflecting on expenditures by functional classification or priority spending (Table 2.2), the county spent a combined average of 71.7 per cent of the total expenditure during the period 2014/15 to 2020/21 on non-administrative and non-coordinational functions such as county health services (35.6%); roads, transport and public works (10.5%); education,

sports, youth, culture and social services (8.9%); land, physical planning and housing (6.7%); agriculture, livestock and fisheries (5.0%); water, environment and natural resources (3.0%); and trade, industry, tourism and cooperative development (1.8%). On the other hand, coordinational and administrative functions accounted for a combined average of 28.3 per cent with finance, ICT and economic planning leading at 10.7 per cent, county assembly following at 8.4 per cent, administration, public service and communication at 5.7 per cent, county executive at 3.0 per cent while county public service board accounted for 0.5 per cent.

**Table 2.2: County departmental spending**

|  | 2014/15        | 2015/16         | 2016/17         | 2017/18         | 2018/19         | 2019/20         | 2020/21         | Average spending | Average share of spending (%) |
|--|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|-------------------------------|
| Health Services                                    | 3,197.2        | 3,739.6         | 4,024.1         | 4,432.3         | 4,374.5         | 5,347.0         | 5,338.5         | 4,350.4          | 35.6                          |
| Finance, ICT and Economic planning                 | 808.1          | 1,337.0         | 1,260.9         | 1,219.2         | 1,262.9         | 1,821.4         | 1,431.8         | 1,305.9          | 10.7                          |
| Roads, Transport & Public works                    | 1,005.1        | 1,217.1         | 1,387.2         | 1,388.7         | 1,306.6         | 1,645.9         | 1,057.1         | 1,286.8          | 10.5                          |
| Education, Youth, Sports Culture, & Social Service | 809.6          | 910.1           | 905.6           | 1,490.2         | 1,321.4         | 1,087.8         | 1,064.4         | 1,084.2          | 8.9                           |
| County Assembly                                    | 845.4          | 818.1           | 940.9           | 1,381.8         | 1,110.8         | 996.4           | 1,094.8         | 1,026.9          | 8.4                           |
| Lands, Physical Planning & housing                 | 156.8          | 251.5           | 227.3           | 261.7           | 2,086.3         | 1,596.4         | 1,186.2         | 823.7            | 6.7                           |
| Administration, Public Service & Communication     | 590.4          | 636.6           | 452.3           | 638.6           | 1,166.7         | 718.4           | 649.0           | 693.1            | 5.7                           |
| Agriculture, Livestock and Fisheries               | 490.9          | 462.8           | 454.6           | 540.4           | 653.3           | 806.8           | 882.1           | 613.0            | 5.0                           |
| County Executive                                   | 283.0          | 426.7           | 360.7           | 532.0           | 339.8           | 348.2           | 334.0           | 374.9            | 3.1                           |
| Water, Environment & Natural Resources             | 297.7          | 331.4           | 384.8           | 432.4           | 367.3           | 361.9           | 402.5           | 368.3            | 3.0                           |
| Trade, Tourism, Industry & cooperatives            | 224.7          | 242.8           | 359.7           | 205.0           | 206.6           | 190.0           | 145.1           | 224.9            | 1.8                           |
| County Public Service board                        | 57.2           | 53.5            | 53.6            | 58.1            | 64.0            | 54.4            | 50.5            | 55.9             | 0.5                           |
| <b>Total</b>                                       | <b>8,765.9</b> | <b>10,427.3</b> | <b>10,811.6</b> | <b>12,580.2</b> | <b>14,260.3</b> | <b>14,974.6</b> | <b>13,635.9</b> | <b>12,208.0</b>  | <b>100.0</b>                  |

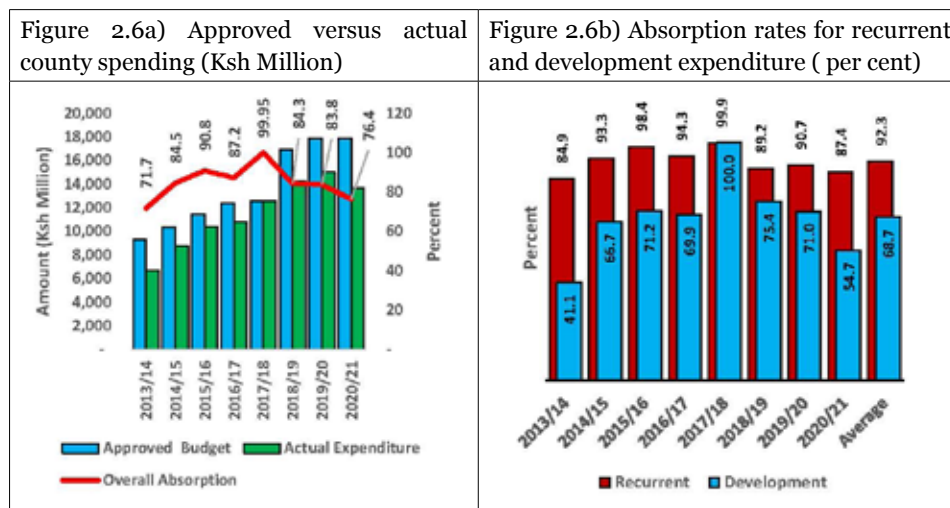
*Data Source: Office of the Controller of Budget*

## Effectiveness of County spending

The execution of the overall county budget has generally followed increasing trajectory. Total budget execution averaged 84.8 per cent in the period 2013/14 to 2020/21. In 2013/14 overall, total budget execution stood at 71.7 per cent. This execution improved to 84.5 per cent in 2014/15 and to 90.8 per cent in 2015/16 before declining to 87.2 per cent in 2016/17. In 2017/18 budget execution reached 99.95 per cent while in 2019/20 it stood at 83.8 per cent. At the end of 2020/21 budget absorption stood at 76.4 per cent meaning that in 2020/21 Ksh 13,651.1 million was utilized out of the Ksh 17,878.4 million approved budget (Figure 2.6).

With regards to development budget execution in the county, the average absorption rate over the period under review was 68.7 per cent (implying that on average about 32.3 per cent of the development budget is not absorbed). This is a major budget implementation weakness, and the county should continue tightening budget implementation to ensure achievement of greater absorption rates to help achieve the targets in ADPs and the CIDP. On recurrent expenditure, the execution has been robust over the years, absorption rate averaging 92.3 per cent leaving about 7.7 per cent of unspent recurrent budget.

## Figure 2.6: Approved expenditure and absorption rate

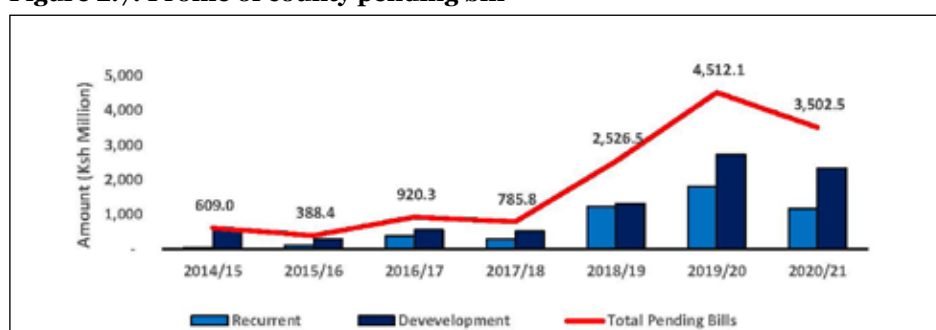


Data Source Office of the Controller of Budget

### Pending Bills

Pending bills in Kiambu county generally follow an upward trend. In 2014/15 the county reported Ksh 609.0 million in pending bills. This increased to Ksh 920.3 million in 2016/17 with development related pending bills accounting for 60.0 per cent of this. Pending bills declined to Ksh 785.8 million in 2017/18 then ascended to Ksh 2,526.5 million in 2018/19 and further to an all-time high of Ksh 4,512.1 million in 2019/20 before turning to Ksh 3,502.5 million in 2020/21. Generally, pending bills related to development spending have been greater than those related to recurrent expenditure on average accounting for 62.5 per cent of the pending bills portfolio over the review period.

**Figure 2.7: Profile of county pending bill**



Data Source: Office of the Controller of Budget

To achieve its overall goal of improving lives and livelihoods of its residents, the county government must now move quickly to tackle the problem of pending bills. Increasing and persistent pending bills is a threat to the survival of the private sector particularly primary firms that trade with the county government. These firms are critical for employment

creation and driving economic activity within the county. These bills have not only affected their profitability and overall performance but have also become a threat to private sector in general and the families that depend on these firms through ripple effect. If not well monitored these could grow and eat up on the county's already thin revenue sources.

## **2.2 Key Messages**

From the foregoing, the following are observed:

- (i) Much of county expenditure happens in third and fourth quarters of the fiscal year, with the latter showing stronger performance. This pattern reveals systemic weaknesses in county public investment management system
- (ii) County wage bill has burgeoning accounting for an average of 51.1 per cent of county expenditure while development spending averaging 24.0 per cent.
- (iii) Priority expenditure has been on non-administrative and non-coordination functions such as health, education, agriculture, roads etc, accounting for an average of 71.7 per cent of actual expenditure. Health sector leads at 35.6 per cent. Administrative and coordinational functions such as county executive, county assembly, public service management and finance account for 28.3 per cent of expenditure.
- (iv) Budget execution as measured by absorption rate has improved over the review period. Average overall absorption rate stands at 84.8 per cent. Average development budget absorption rate stands at 68.7 per cent while that of recurrent expenditure stands at 92.3 per cent.
- (v) Pending bills have been burgeoning over the review period with development related pending bills accounting for 62.5 per cent.

## **2.3 Recommendations**

To steer the county towards achieving its budgetary objective and development goals contained in the ADPs and CIDP, the following measures are proposed:

- Mobilize more finances from OSR to increase the available revenues for budgetary operations.
- Seek for more funding in form of grants from development partners to cater for the critical development projects in the county.
- Ensure that the ongoing projects are completed before launching new projects and clear any pending bills and arrears owed to suppliers.
- Ensure the ongoing infrastructure project are completed and suppliers paid within the specified timelines for optimal returns to investment and to spur private sector activity.
- Improve budget execution and absorption of development budget by harmonizing project implementation cycles to budgeting and fast-track exchequer releases.

- Reduction of expenditure on compensation of employees within the PFM requirement since ballooning compensation of employees potentially affects execution of key development programs especially if not brought to sustainable levels.
- Monitoring and prompt payment of pending bills as they limit execution of planned activities in subsequent budgets.

### **3. Agriculture, Livestock and Fisheries**

### 3.1 Characteristics of the Sector

Agriculture accounts for a significant share of economic activity in Kiambu County. More than 30 per cent of County economic activity is driven by the agriculture sector. In 2017, agriculture accounted for Ksh 132,421 million out of the total Ksh 421,918 million Gross County Product (GCP) amounting to 31.4 per cent of the County's GCP.

About 26.9 per cent of the households in Kiambu County practice farming. About 22.3 per cent of the households produce crops, 18.5 per cent produce livestock, 0.05 per cent practice aquaculture and about 0.17 per cent are involved in fishing. About 1.9 per cent of the households practice irrigation farming.

**Table 3.1: Distribution of households practicing agriculture, fishing and irrigation by county and sub-county**

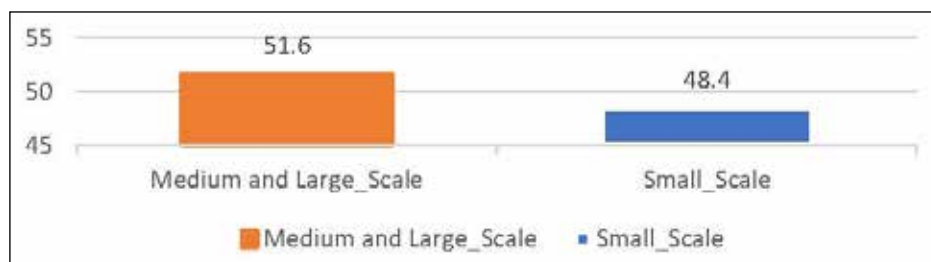
| County/Sub County | Total Households | Farming Households | Crop Production | Livestock Production | Aquaculture | Fishing | Irrigation |
|-------------------|------------------|--------------------|-----------------|----------------------|-------------|---------|------------|
| Kenya             | 12,143,913       | 6,354,211          | 5,555,974       | 4,729,288            | 29,325      | 109,640 | 369,679    |
| Kiambu            | 795,241          | 214,052            | 177,419         | 147,137              | 417         | 1,317   | 14,835     |
| Gatundu North     | 31,472           | 21,532             | 19,457          | 15,368               | 23          | 75      | 716        |
| Gatundu South     | 35,609           | 25,074             | 23,552          | 17,818               | 62          | 146     | 740        |
| Githunguri        | 49,426           | 29,745             | 26,504          | 21,117               | 31          | 113     | 1,734      |
| Juja              | 104,301          | 15,859             | 9,564           | 11,395               | 50          | 192     | 1,658      |
| Kabete            | 66,710           | 15,713             | 11,756          | 10,463               | 32          | 66      | 2,681      |
| Kiambaa           | 80,332           | 13,339             | 10,223          | 8,350                | 18          | 68      | 909        |
| Kiambu            | 47,275           | 10,505             | 7,831           | 6,907                | 28          | 80      | 728        |
| Kikuyu            | 60,686           | 17,693             | 14,832          | 11,772               | 26          | 70      | 876        |
| Lari              | 38,592           | 25,602             | 23,860          | 18,031               | 40          | 72      | 1,219      |
| Limuru            | 49,174           | 19,202             | 16,888          | 12,561               | 25          | 69      | 1,003      |
| Ruiru             | 129,470          | 8,590              | 5,013           | 5,960                | 37          | 105     | 1,003      |
| Thika East        | 12,736           | 4,700              | 3,739           | 3,340                | 17          | 125     | 863        |
| Thika West        | 89,458           | 6,498              | 4,200           | 4,055                | 28          | 136     | 705        |

Source: 2019 Kenya Population and Housing Census

On the scale of production, the FAO criterion on land size is used to identify small holder farmers as those producers that “fall in the bottom 40 per cent of the cumulative distribution” (Khalil et al., 2017). Using this criterion, almost half of the farming households in Kiambu County (48.4 per cent) are “small-scale” farming with a land holding of 0.675 or less acres of land.

**Figure 3.1: Scale of operation: Percentage of households**





Source: Estimated using the KIHBS 2015/2016. Figures for a period of the 12 months

The County is classified as a Central highlands agro-ecological zone as per the Agricultural Sector Transformation and Growth Strategy (ASTGS) 2019-2029. An overall analysis of the County agricultural production indicates among the top food crops produced by households in Kiambu include maize, beans, potatoes, kales, bananas and cabbages.

**Table 3.2: Distribution of households growing crops by type, county and sub-county**

| County/Sub County | Kiambu  | Gatundu North | Gatundu South | Githunguri | Juja  | Kabete     |            |
|-------------------|---------|---------------|---------------|------------|-------|------------|------------|
| Maize             | 144,125 | 14,604        | 20,819        | 23,166     | 7,436 | 8,812      |            |
| Beans             | 120,887 | 11,788        | 18,372        | 18,081     | 6,226 | 7,216      |            |
| Potatoes          | 108,457 | 9,382         | 17,143        | 16,428     | 2,362 | 5,859      |            |
| Kales             | 103,524 | 7,309         | 11,440        | 16,009     | 3,870 | 8,232      |            |
| Bananas           | 74,810  | 12,602        | 17,800        | 16,563     | 2,618 | 2,999      |            |
| Cabbages          | 41,121  | 3,163         | 4,400         | 7,734      | 1,021 | 1,917      |            |
| Onions            | 28,684  | 2,023         | 3,373         | 4,711      | 1,316 | 1,657      |            |
| Sugarcane         | 19,981  | 2,228         | 4,949         | 3,922      | 1,046 | 808        |            |
| Sweet Potatoes    | 18,416  | 3,276         | 4,625         | 2,396      | 1,416 | 501        |            |
| Tomatoes          | 17,996  | 1,568         | 1,837         | 3,565      | 1,514 | 811        |            |
| Cassava           | 9,816   | 1,170         | 2,420         | 1,484      | 1,062 | 231        |            |
| County/Sub County | Kiambu  | Kikuyu        | Lari          | Limuru     | Ruiru | Thika East | Thika West |
| Maize             | 6,657   | 13,449        | 16,282        | 14,312     | 3,554 | 3,304      | 2,942      |
| Beans             | 5,238   | 12,733        | 12,158        | 13,413     | 2,756 | 3,024      | 2,262      |
| Bananas           | 4,229   | 3,174         | 4,896         | 1,617      | 1,423 | 1,111      | 1,296      |
| Kales             | 3,833   | 8,210         | 20,622        | 11,999     | 2,367 | 1,472      | 2,034      |
| Potatoes          | 3,172   | 12,438        | 19,240        | 14,217     | 970   | 752        | 889        |
| Sugarcane         | 1,477   | 1,054         | 780           | 567        | 807   | 458        | 677        |
| Onions            | 955     | 2,421         | 4,917         | 3,755      | 885   | 563        | 777        |
| Tomatoes          | 909     | 1,259         | 1,578         | 1,344      | 939   | 651        | 930        |
| Cabbages          | 835     | 2,178         | 12,078        | 4,908      | 681   | 305        | 497        |

|                |     |     |       |     |     |     |     |
|----------------|-----|-----|-------|-----|-----|-----|-----|
| Sweet Potatoes | 737 | 782 | 1,089 | 540 | 689 | 634 | 758 |
| Cassava        | 570 | 338 | 305   | 179 | 478 | 620 | 498 |

Source: 2019 Kenya Population and Housing Census

Key permanent crops among households in Kiambu include avocado, coffee, tea and macadamia.

**Table 3.3: Distribution of households growing permanent crops by type and County**

| County/Sub County | Tea     | Coffee  | Avocado | Citrus  | Mango   | Macadamia |
|-------------------|---------|---------|---------|---------|---------|-----------|
| Kiambu            | 20,958  | 31,152  | 31,392  | 2,160   | 9,855   | 11,748    |
| Kenya             | 476,613 | 478,936 | 966,976 | 177,445 | 796,867 | 195,999   |

Source: 2019 Kenya Population and Housing Census

Resource productivity is another key important factor in determining the agro-processing potential (scale) of the County and would have a great impact on farmers' incomes and the County's GCP. An assessment of horticultural productivity indicates Kiambu's value of fruits production in 2019 amounted to Ksh 3.8 billion. The area under fruit was 5,843 Ha with a production of 377,858 MT. The major fruits grown in order of value importance are; pineapples, avocado, banana, macadamia nuts, mango, s/berry, tree tomato, purple passion fruits, watermelons and pears.

**Table 3.4: Fruits grown in Kiambu County**

| Type of Fruit         | Area in Ha | Production in Tons | Value in Shillings |
|-----------------------|------------|--------------------|--------------------|
| Pineapples            | 920        | 34,653             | 1,242,000,000      |
| Avocado               | 1,637      | 263,977            | 1,204,258,500      |
| Banana                | 2,451      | 64,873             | 720,788,360        |
| Macadamia Nuts        | 322        | 4,929              | 488,190,000        |
| Mango                 | 190        | 4,853              | 32,762,000         |
| S/Berry               | 18         | 1,147              | 27,824,000         |
| Tree Tomato           | 61         | 236                | 17,340,000         |
| Purple Passion Fruits | 24         | 202                | 12,144,000         |
| Watermelons           | 27         | 309                | 10,700,000         |
| Pears                 | 76         | 380                | 9,608,000          |
| Pawpaw                | 33         | 266                | 8,678,400          |
| Peaches               | 14         | 111                | 6,630,000          |
| Thorn/Horn Melons     | 9          | 138                | 3,300,000          |
| Loquats               | 18         | 72                 | 3,096,000          |
| Oranges               | 11         | 71                 | 2,480,000          |
| Apples                | 2          | 1,538              | 1,956,120          |
| Plums                 | 15         | 71                 | 1,642,000          |

|                |              |                |                      |
|----------------|--------------|----------------|----------------------|
| Guavas         | 6            | 13             | 362,500              |
| Lemons         | 5            | 11             | 220,000              |
| Lime           | 4            | 7              | 170,000              |
| Yellow Passion | 0            | 1              | 4,000                |
| <b>Total</b>   | <b>5,843</b> | <b>377,858</b> | <b>3,794,153,880</b> |

Source: AFA, 2019

In 2019, the value of vegetables production in the County amounted to Ksh 6.05 billion. The area under vegetables was 24,396 Ha with a production of 1,113, 029 MT. The major vegetables grown in order of value importance are; potato, kales, tomato, spinach, cabbage, carrots, garden peas and french beans.

**Table 3.5: Vegetables grown in Kiambu County**

| Type of Vegetables       | Area in Ha | Production in Tons | Value in Shillings |
|--------------------------|------------|--------------------|--------------------|
| Potato                   | 11,540     | 839,270            | 2,031,564,993      |
| Kales                    | 4,601      | 123,855            | 1,183,654,200      |
| Tomato                   | 1,359      | 49,842             | 1,023,683,000      |
| Spinach                  | 1,680      | 33,146             | 552,981,000        |
| Cabbage                  | 2,348      | 43,954             | 476,318,000        |
| Carrots                  | 999        | 11,908             | 430,644,288        |
| Garden Peas              | 513        | 2,430              | 165,232,800        |
| French Beans             | 238        | 1,779              | 46,262,500         |
| Courgettes/Squash/Marrow | 316        | 1,178              | 23,129,300         |
| Broccoli                 | 52         | 544                | 16,470,000         |
| Leaf Amaranth            | 85         | 739                | 16,315,100         |
| African Nightshade       | 207        | 1,458              | 13,642,800         |
| Cauliflower              | 82         | 699                | 13,313,600         |
| Bell Pepper/Sweet Paper  | 75         | 259                | 12,095,000         |
| Cowpea                   | 110        | 737                | 7,837,000          |
| Cucumber                 | 21         | 105                | 7,326,930          |
| Egg Plant                | 43         | 291                | 5,455,300          |
| Pumpkin Fruit            | 18         | 156                | 4,968,100          |
| Spider Plant             | 20         | 128                | 4,660,000          |
| Lettuce                  | 13         | 125                | 3,750,000          |
| Beetroot                 | 8          | 55                 | 2,601,800          |
| Malabor Gourd/Kahurura   | 14         | 52                 | 1,040,000          |
| Dudhi/Bottle Guard       | 10         | 120                | 1,000,000          |
| Butter Nut               | 10         | 30                 | 900,000            |
| Snow Pea                 | 2          | 10                 | 800,000            |
| Turia                    | 4          | 16                 | 800,000            |
| Okra                     | 6          | 24                 | 600,000            |

|                        |               |                  |                      |
|------------------------|---------------|------------------|----------------------|
| Valore                 | 6             | 24               | 600,000              |
| Turnips                | 1             | 15               | 450,000              |
| Pumpkin Leaves         | 10            | 13               | 190,000              |
| Sweetcorn              | 2             | 54               | 124,200              |
| Russian Comfrey/Mafaki | 2             | 9                | 90,000               |
| Grain Amaranth         | 1             | 4                | 48,000               |
| <b>Total</b>           | <b>24,396</b> | <b>1,113,029</b> | <b>6,048,547,911</b> |

Source: AFA, 2019

In 2019, the value of MAPs production in the County amounted to Ksh 105.6 million. The area under MAPSs was 742 Ha with a production of 12,326 MT. The major MAPs grown are; Corriander, Bulb Onion, and Spring Onion/Green Shallots.

**Table 3.6: Medicinal and Aromatic Plants (MAPs) Grown in Kiambu County**

| Medicinal and Aromatic Plants (MAPs) | Area in Ha | Production in Tons | Value in Shillings |
|--------------------------------------|------------|--------------------|--------------------|
| Corriander                           | 470        | 10,993             | 63,678,000         |
| Bulb Onion                           | 186        | 1,000              | 32,130,000         |
| Spring Onion/Green Shallots          | 53         | 246                | 6,515,000          |
| Long Cayenne Chilies                 | 31         | 82                 | 3,055,000          |
| Leeks                                | 1          | 3                  | 150,000            |
| Parsley                              | 1          | 2                  | 45,000             |
| <b>Total</b>                         | <b>742</b> | <b>12,326</b>      | <b>105,573,000</b> |

Source: AFA, 2019

Animal production is also a key economic activity in Kiambu County. Other than rearing the traditional livestock (i.e. cattle, sheep and goats), the County has promoted poultry production, pig farming and donkey keeping among farming households in the County. A lower percentage of farming households practice bee keeping (apiculture) and aquaculture.

**Table 3.7: Distribution of Households Rearing Livestock and Fish by County and Sub County**

| County/Sub County     | Kenya     | Kiambu | Gatundu North | Gatundu South | Githunguri | Juja  | Kabete |  |
|-----------------------|-----------|--------|---------------|---------------|------------|-------|--------|--|
| Indigenous Chicken    | 3,337,700 | 92,248 | 8,758         | 11,795        | 12,195     | 9,001 | 5,159  |  |
| Exotic cattle -Dairy  | 939,916   | 67,014 | 8,476         | 10,414        | 14,861     | 1,457 | 4,188  |  |
| Sheep                 | 1,299,893 | 30,251 | 3,478         | 4,686         | 2,418      | 1,659 | 1,352  |  |
| Goats                 | 1,898,887 | 21,854 | 3,425         | 3,028         | 2,105      | 2,595 | 899    |  |
| Exotic Chicken Layers | 194,517   | 14,138 | 1,580         | 1,241         | 1,672      | 1,077 | 1,116  |  |
| Indigenous cattle     | 2,260,439 | 10,511 | 1,090         | 1,195         | 1,230      | 1,148 | 464    |  |

|                         |         |        |        |        |        |       |            |            |
|-------------------------|---------|--------|--------|--------|--------|-------|------------|------------|
| Pigs                    | 110,383 | 9,731  | 334    | 483    | 911    | 452   | 2,176      |            |
| Exotic cattle -Beef     | 167,625 | 9,559  | 1,752  | 1,615  | 1,336  | 303   | 600        |            |
| Rabbits                 | 124,122 | 7,577  | 1,025  | 930    | 849    | 808   | 401        |            |
| Exotic Chicken Broilers | 79,461  | 4,156  | 271    | 383    | 530    | 402   | 322        |            |
| Donkeys                 | 500,682 | 3,891  | 38     | 21     | 103    | 205   | 130        |            |
| Beehives                | 201,406 | 1,535  | 261    | 256    | 164    | 94    | 41         |            |
| Fish Ponds              | 22,019  | 379    | 22     | 55     | 27     | 45    | 29         |            |
| Fish Cages              | 3,361   | 52     | 3      | 10     | 4      | 8     | 3          |            |
| County/Sub County       | Kiambaa | Kiambu | Kikuyu | Lari   | Limuru | Ruiru | Thika East | Thika West |
| Farming                 | 13,339  | 10,505 | 17,693 | 25,602 | 19,202 | 8,590 | 4,700      | 6,498      |
| Indigenous Chicken      | 4,659   | 3,919  | 8,393  | 11,012 | 7,653  | 4,402 | 2,673      | 2,629      |
| Exotic cattle Dairy     | 2,673   | 2,156  | 3,771  | 11,369 | 5,747  | 748   | 389        | 765        |
| Sheep                   | 1,415   | 874    | 2,447  | 6,324  | 3,982  | 626   | 678        | 312        |
| Pigs                    | 1,230   | 1,413  | 1,336  | 144    | 536    | 287   | 107        | 322        |
| Goats                   | 1,144   | 1,251  | 1,896  | 1,007  | 1,168  | 1,226 | 1,246      | 864        |
| Exotic Chicken Layers   | 930     | 946    | 1,066  | 1,646  | 1,238  | 827   | 150        | 649        |
| Indigenous cattle       | 540     | 318    | 575    | 1,547  | 648    | 407   | 1,123      | 226        |
| Rabbits                 | 381     | 429    | 416    | 1,110  | 471    | 320   | 212        | 225        |
| Exotic cattle Beef      | 364     | 289    | 479    | 1,636  | 745    | 217   | 50         | 173        |
| Exotic Chicken Broilers | 322     | 325    | 321    | 387    | 247    | 341   | 36         | 269        |
| Donkeys                 | 114     | 51     | 957    | 988    | 1,106  | 112   | 47         | 19         |
| Beehives                | 61      | 86     | 141    | 178    | 127    | 35    | 67         | 24         |
| Fish Ponds              | 17      | 28     | 25     | 38     | 22     | 32    | 17         | 22         |
| Fish Cages              | 2       | 4      | 1      | 3      | 4      | 6     | -          | 4          |

Source: KNBS (2019), Kenya Population and Housing Census

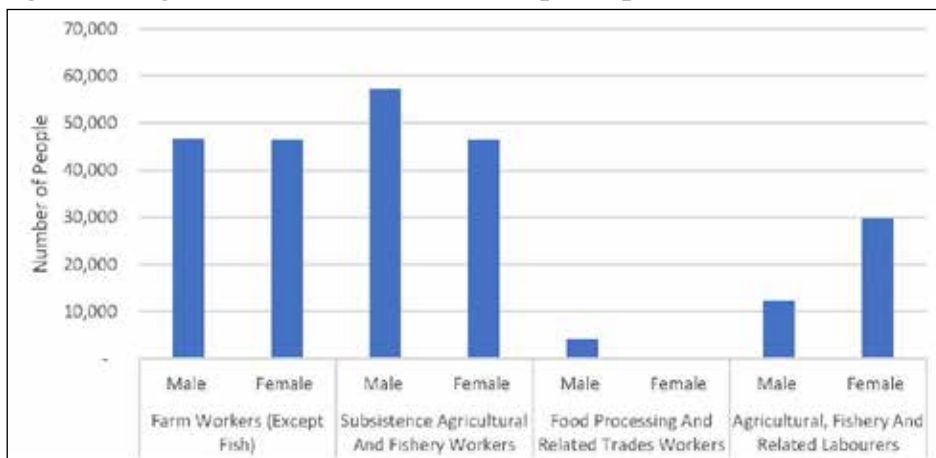
The above characterization of farming households highlights the priority value chain opportunities in maize, beans, potatoes, kales, bananas, cabbages, avocado, coffee, tea, macadamia, cattle, sheep, goats, poultry production, pig farming and donkey keeping. With majority of the households farming the identified products, the Kiambu transformation strategy in agriculture need to prioritize value chains in the identified areas to positively impact of households' livelihoods.

## Agri-Food Challenges in COVID-19

### i) Human capital/employment levels – by gender

Agricultural labor participation in Kiambu indicates relative dominance by females and males in specific sub-categories of agriculture related occupations in the County. Majority of the population in Kiambu are subsistence agricultural and fishery workers. The workers in this sub-major group grow and harvest field or tree and shrub crops, grow vegetables and fruit, tend or hunt animals, gather wild fruits and plants, catch fish and gather other forms of aquatic life in order to provide food, shelter and a minimum of cash income for themselves and their households. The second most popular agriculture related workers in the County are farm workers where the group covers occupations related to: Field Crop, Vegetable and Horticultural Farm Workers; Poultry, Dairy and Livestock Producers; and Crop and Animal Producers. The other popular category is the agricultural, fishery and related labourers. The workers in this sub-major group include: Farm-hands and Related Labourers; Forestry Labourers; and Fishery, Hunting and Trapping Labourers. The classifications are based on the Kenya National Occupational Classification Standard (KNOCS)

**Figure 3.2: Agriculture related labour force participation**



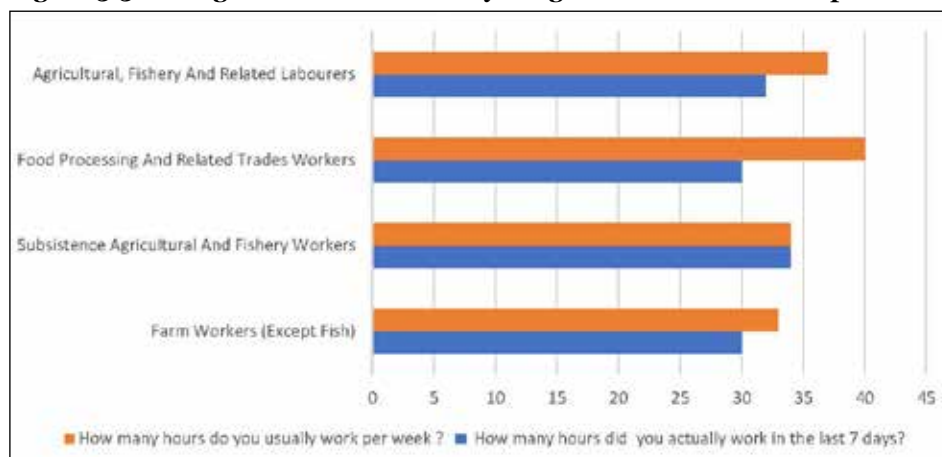
Source: Estimates from the KNBS Survey on Socio-economic Impact of COVID-19 on Households-Wave 2

An assessment of the COVID-19 effects on hours worked in agriculture related occupations indicates workers in almost all the identified sub-sectors worked fewer hours in the reference period as compared with the usual hours worked per week. The most affected workers are the food processing and related trades workers who recorded the highest difference of 10 hours between the usual and actual hours worked in a week. The workers in this sub-major group include:

Occupations in this sub-major group are namely: - Butchers, Fishmongers and Related Food Preparers; Bakers, Pastry-cooks and Confectionery Makers; Dairy Products Makers; Fruit, Nut and Related Preservers; Tobacco Preparers and Tobacco Products Makers; Food and Beverage Tasters; Brewers, Distillers and Related Workers; and Other Food Processing

and Related Workers.

**Figure 3.3: Changes in hours worked by in agriculture related occupations**



Source: Estimates from the KNBS Survey on Socio-economic Impact of COVID-19 on Households-Wave 2

The identified COVID-19 effects on labour force participation are likely to have negative effects on output thereby increasing yield gaps.

**ii) Market operations**

Successful transformation of smallholder agricultural production in Kiambu County from subsistence to an innovative, commercially oriented and modern agricultural sector, as aspired in the national ASTGS, is dependent on the ability of the County market its commodities both in domestic, regional and international markets.

As a result of COVID-19, there was a slow down on trade activities due to the restrictions on movements. From the KNBS conducted between 30th May and 6th June 2020, 25.9 per cent of the households in Kiambu County indicated over the past 1 week there had been instances where the household or a member of the household could not access the markets/ grocery stores to purchase food items.

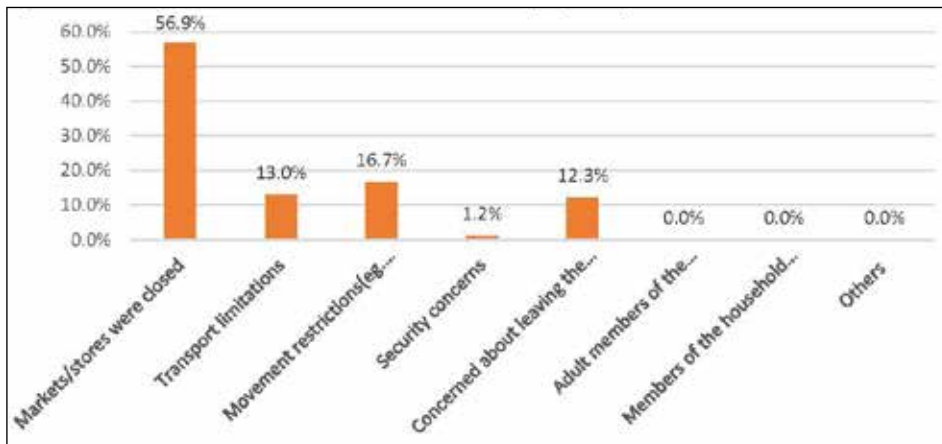
**Figure 3.4: Limited access to markets to purchase food items**



Source: Estimates from the KNBS Survey on Socio-economic Impact of COVID-19 on Households-Wave 2

Majority of the households indicated the key reasons for not accessing the markets/grocery stores to purchase food items were closure of the markets/grocery stores (56.9 per cent), movement restrictions (16.7 per cent), transport limitations (13 per cent) and concerned about leaving the house due to outbreak (12.3 per cent).

**Figure 3.5: Reason for Limited access to markets/ grocery stores**



Source: Estimates from the KNBS Survey on Socio-economic Impact of COVID-19 on Households-Wave 2

Livestock trade was affected as traders are unable to take the livestock to the market. The restrictions affecting seamless movement of food commodities are likely to cause a hike in prices in non-production areas and fall in prices in production areas. 79 per cent of households in Kiambu County indicated that over the past 2 weeks from the reference period, while 19 per cent indicated that they had not experienced a change in the prices.

**Figure 3.6: Percentage of households experiencing change in food commodity**



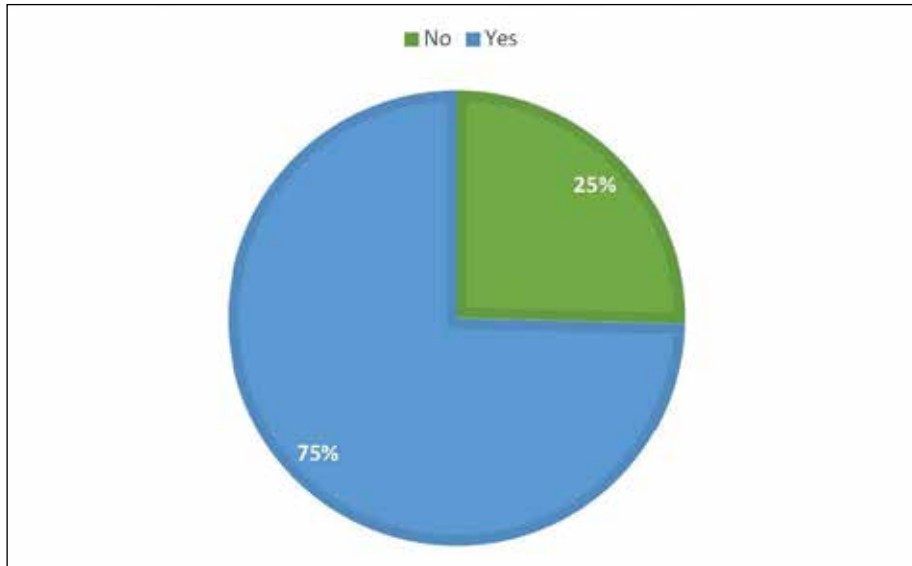
**prices**



Source: Estimates from the KNBS Survey on Socio-economic Impact of COVID-19 on Households-Wave 2

On the magnitude of the price shocks, 75 per cent of the households indicated they faced a large rise in food prices in the past two weeks from the reference period.

**Figure 3.7: Proportion of households facing large food price shocks**

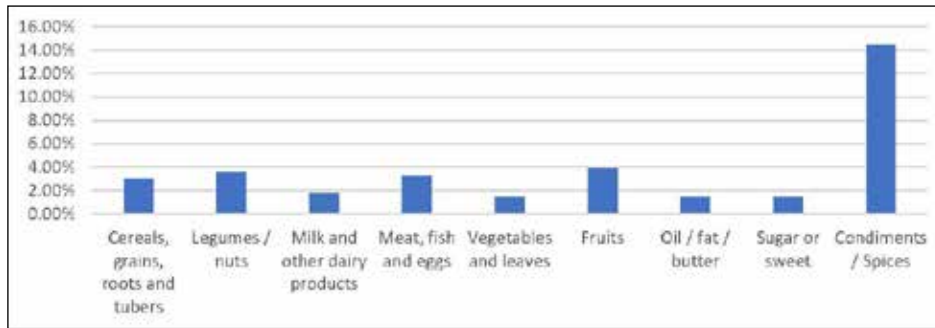


Source: Estimates from the KNBS Survey on Socio-economic Impact of COVID-19 on Households-Wave 2

Poor access to markets also hinders the ability to supply food to the population as shown in the below figure.

**Figure 3.8: Percentage households reporting that the following food items**

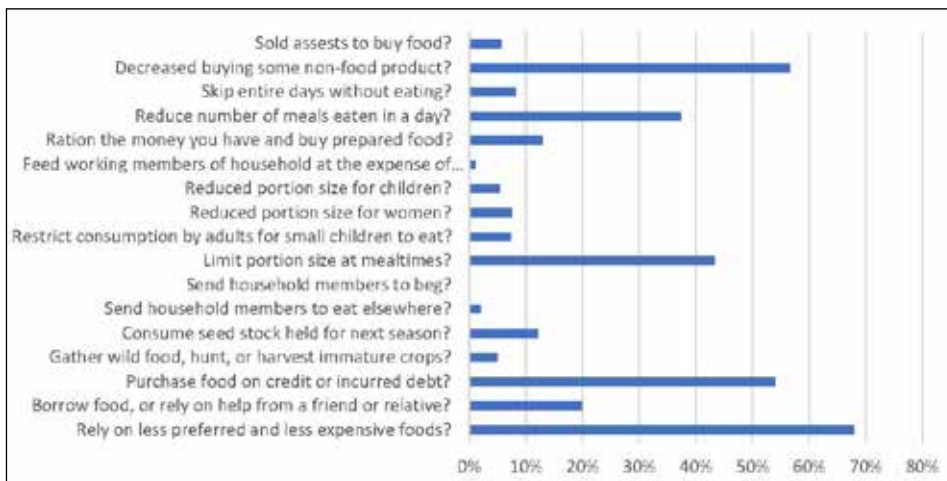
were not readily available in their locality



Source: Estimates from the KNBS Survey on Socio-economic Impact of COVID-19 on Households-Wave 2

The nutritious food categories affected most were fruits and legumes. These food categories are necessary for boosting the immune system of the population. Among the key strategies adopted by households to mitigate COVID-19 effects on food consumption include relying on less preferred and less expensive foods (67.9%), decreased buying some non-food products (56.7%), purchase food on credit or incurred debt (54%), limit portion size at mealtimes (43.2%) and reduce number of meals eaten in a day (37.5%).

**Figure 3.9: Percentage of households where the following strategies were adopted for at least one day**

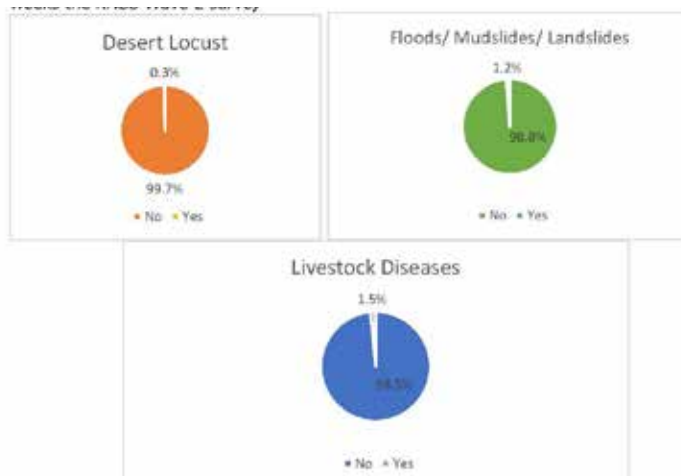


Source: Estimates from the KNBS Survey on Socio Economic Impact of COVID-19 on Households-Wave 2

Additional challenges, albeit at low levels, faced by the County during the COVID-19 pandemic period include: Desert locusts (0.3 per cent); Floods/ Mudslides/ Landslides (1.2%); and Livestock Diseases (1.5%).

**Figure 3.10: Percentage of households who experienced the below shocks in**

### the past two weeks the KNBS Wave 2 survey



Source: Estimates from the KNBS Survey on Socio-economic Impact of COVID-19 on Households-Wave 2

### Agri-Food Constraints Faced in the County

Among the Key Constraints the County faces include:

- (a) Farmers low access to quality and affordable inputs including certified seeds, water, animal feeds, artificial insemination (AI) services, fertilizers, livestock vaccination and mechanized ploughing services by County tractor hire services.
- (b) Variable and extreme weather events which have increased in frequency and intensity over the years adversely affecting crop and livestock production
- (c) Poor access to agricultural finance, to include credit and insurance.
- (d) Land fragmentation due to land sub-division which affects productivity as production activities are becoming uneconomically viable.
- (e) Low productivity due to subdivisions and traditional methods of farming, raising concerns of food shortages
- (f) Dependence of rain fed agriculture despite frequency in extreme climate conditions, such as drought episodes, delayed and erratic rains among other climate shocks
- (g) Low productivity due to poor natural resource management including land
- (h) Poor and inadequate rural road infrastructure affecting marketing activities.
- (i) Low commercialization of farming where majority of farmers practice farming for subsistence purposes and as cultural practices rather than a business.
- (j) Low adoption of high value crops that would increase farmers returns
- (k) Pests and diseases
- (l) Low agro-processing and value addition opportunities among small scale farmers

- (m) Slow uptake of digital platforms to market agricultural produce.
- (n) Inadequate extension and veterinary services
- (o) Low crops, livestock, and livestock products marketing opportunities necessary for improved incomes
- (p) High post production losses

The above challenges combined will lead to the overall impact of reducing farm output, farmer incomes and increasing the vulnerability of households to food insecurity and climate variability particularly flood and drought episodes.

### **3.2 Opportunities with COVID-19 in Various Sectors**

An assessment of the sector linkages to other sectors highlights that the sector is enabled by:

- (i) Businesses/ MSMEs: Businesses and MSMEs are crucial in providing inputs and requirements to the agricultural sector. The sector would facilitate the efficient access to:
  - o Transport, Storage and ICT sectors
  - o Financial and insurance activities
  - o Accommodation Food services
- (ii) Manufacturing: The manufacturing sector plays a crucial role in agro-processing. Agricultural inputs also contribute to the processing of other manufacturing commodities

The County has opportunities in:

- (a) Developing County-private partnership in enhancing agro-processing and value addition capacities; Construction of abattoirs; and Linking farmers to product markets
- (b) Access to quality, certified, and affordable inputs including certified seedlings, AI services, fertilizers, livestock vaccination, ploughing services by County tractor hire services. The County government has ventured to reduce cost of farming inputs. It has partnered with companies that manufacture seed to supply these seed to farmers at subsidized cost
- (c) Provision of storage and cooling facilities particularly at collection points to minimize spoilage and post-harvest losses particularly for milk.
- (d) Uptake of digital platforms to build capacities of farming households in modern agricultural technologies and marketing of agricultural produce
- (e) Expand/ exploit innovative marketing opportunities for farmers produce including uptake of innovative marketing platforms, such as milk ATMs, so that farmers are not exploited by middlemen.
- (f) Adoption of drought resistant livestock pastures/fodder and crops

- (g) Adoption of fodder and feed conservation
- (h) Scaling up conservation agriculture, post-harvest management, planting drought-tolerant and early-maturing varieties, and agro-forestry.
- (i) Enhanced water harvesting, sustainable and efficient irrigation.
- (j) Increased livestock production through: - intensified production, routine vaccination, deworming and vector control to maintain animal health; decentralized veterinary services; disease surveillance; storing and conserving pastures and fodder; capacity building on animal management and training on preservation and value addition techniques; and improved milking hygiene and animal housing.
- (k) Adoption of natural resource management to include soil and water conservation, tree planting, changing of crop type and water harvesting.
- (l) Enhance supportive services to include early-warning systems, credit, advisory and information services through extension and training.
- (m) Enhancing farmers technical capacities to act on advisory information received
- (n) Improved crop and livestock emergencies surveillance systems in the County.
- (o) Strengthening farmers' associations and cooperatives as an additional solution to marketing challenges

### **3.3 Emerging Issues**

- (i) Environmental degradation has reduced productive capacity of farms leading to increased risks to food insecurity and reduced farmers income.
- (ii) Climate change, manifested in increased frequency and intensity of extreme weather conditions such as floods, droughts and pest invasion

### **3.4 Recommendations**

To successfully build resilience and enhance growth of the agriculture sector, the County will:

- (i) Develop partnership with development partners, the National Government, NGOs, Research Institutions and the Private sector in enhancing agro-processing and value addition capacities of the County in milk, tea, coffee. Currently, the County has identified the need to make mini-milk processing points in all sub-counties that do dairy farming. The County is trying to get funding from USAID and the private sector so as to help in value addition of the dairy products. Additional opportunities are in: - poultry processing plant for improved chicken, bacon factory, hides and skins cottage industries.
- (ii) Facilitate and ensure small holder farmers remain in business and keep on producing through enhanced commercialization opportunities among small holder farmers in the County by strengthening market linkages beyond the County level, domestically and internationally, across the agricultural value chain. In particular, the County will

promote commercialization of avocados, bananas and horticultural production.

- (iii) Provision of storage and cooling facilities particularly at collection points to minimize spoilage and post-harvest losses.
- (iv) Digitize the agri-food sector to support: - training and building capacities of farming households in modern agricultural technologies, provision of advisory and information services, marketing agricultural produce at a wider scope beyond the County level and improving access to innovative support services including credit and insurance services.
- (v) Enhance access to quality and affordable inputs including certified seeds, electricity, water, animal feeds, artificial insemination (AI) services, fertilizers, livestock vaccination and ploughing services by County tractor hire services. Efforts towards achieving this include the assent of the Agricultural law to ensure that livestock farmers are given high quality semen for their cows for diary sustainability.
- (vi) Establish programmes for surveillance of disasters such as extreme weather conditions, crop pest and diseases, and livestock disease at the County level equipped with relevant technical specialists and finances to effectively prepare, respond and prevent risks. There is also need for the County to mitigate disasters, such as those related to floods, through institutional capacity development, vulnerability analyses and updates, monitoring and early warning systems, and public education.
- (vii) Strengthen agricultural cooperatives through effective stakeholder engagement and implementation of interventions for more sustainable models of financing and customized training of cooperative members.

## 4. Water, Sanitation, and Hygiene

### 4.1 Characteristics of the Sector

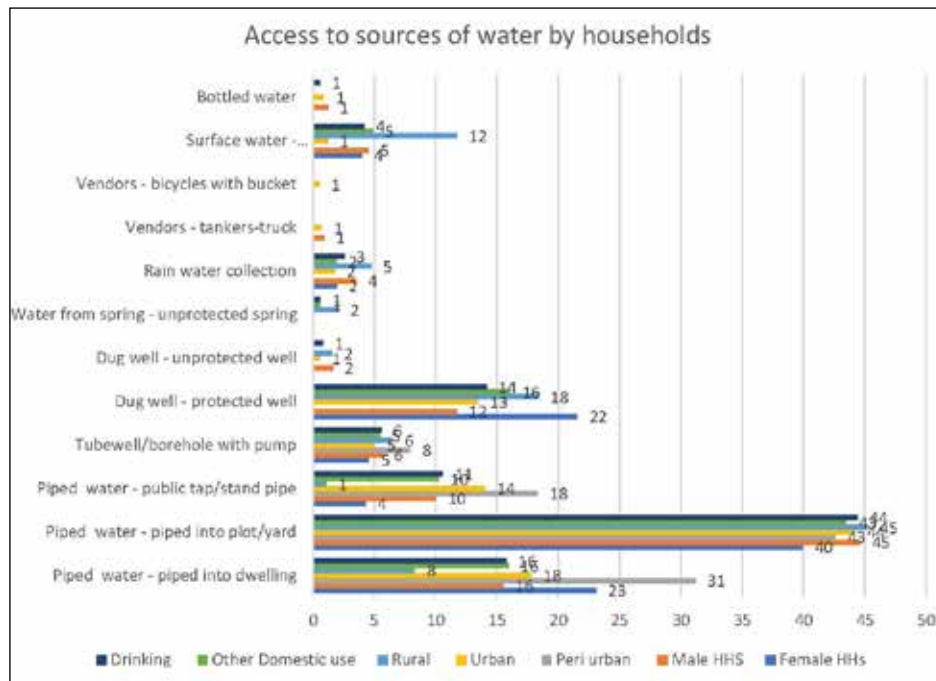
The county has sixteen permanent rivers originating from Aberdare Ranges, which is the main water tower for the county. The major rivers that meet the county water demand are; Ndarugũ, Thiririka, Ruiru, Kamiti and Kiu, all of which eventually drain into Athi River, and five major wetlands are; Kikuyu, Lari, Theta, Kiganjo and Gacii wetlands.

The eastern part of the county that includes Thika, Gatundu, Ruiru and Juja is well endowed with surface water from Chania, Thika, Karimenu, Ruabora, Ndarugu, Thiririka, Theta, Mukuyu, Ruiru rivers. Water management in the county is under Kiambu water and sewerage company, Limuru water and Sewarage company, Kikuyu Water Company, Thika Water Company among others. The major towns and urban centres in Kiambu county have convectional sewer treatment system, these include Thika, Kiambu, Limuru, Ruiru and Juja urban centres

#### *Access to source of water by households*

The major source of water for drinking utilized by households in the county is piped water into plot/yard (44.4%), piped water into dwelling (15.8%) and dug well (protected) at (14.1%). Both male (44.6 per cent) and female (39.9%) headed households also relies on piped water into plot/yard for drinking as well as piped water into dwelling (male-headed households 15.2 per cent and female headed households 23.1 per cent (female-headed households) as well as water from dug well(protected) at 11.74 per cent and 21.5 per cent for male and female headed households. Only a small portion of the households relies on vendors(tankers/truck) (0.5 per cent) and dug well(unprotected) (0.6%).

The major sources of water for drinking for rural, urban, and peri-urban areas, whereby their major source of drinking water piped water into plot/yard (45.2%), dug well(protected) (18.4%) and surface water (11.7%). Most of urban households relies on piped water into plot/yard (44.2%) and piped water into dwelling (17.8%). While peri-urban households rely on piped water into plot/yard (42.6 per cent) as well as piped water into dwelling (31.2%).

**Figure 4.1 : Access to water by households**

Source: KNBS 2015/2016

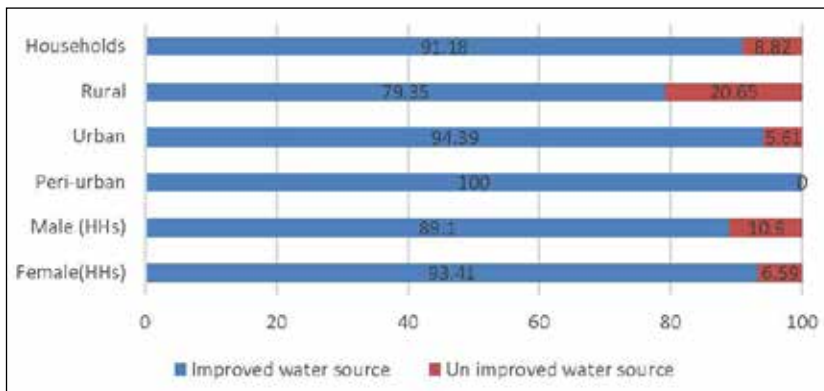
### ***Access to sources of water by households (improved and unimproved sources)***

Clean and safe water is essential for good health and goes a long way in ensuring reduced infections. Access to improved sources of drinking water<sup>2</sup> is high among households (91.2 per cent) this is similar in rural (79.4%), urban (94.4%) and peri-urban (100%). Additionally, both male and female headed households have low access to improved drinking water source of water as shown in the figure below.

2 Improved source of drinking water includes; water from the following sources Piped water - piped into dwelling, Piped water - piped into plot/yard, Piped water - public tap/stand pipe, Tubewell/borehole with pump, Dug well - protected well, Dug well - unprotected well, Water from spring - protected spring). While unimproved sources of water include water from spring - unprotected spring, Rainwater collection, Vendors - tankers-truck, Vendors - cart with small tank/drum/bucket, Vendors-bicycles with bucket, Surface water, river/streams/pond/dam/lake/cannal/irrigation channel Bottled water. This is according to the WHO and UN classification of sources of water.



**Figure 4.2: Access to improved and unimproved sources of water by households**

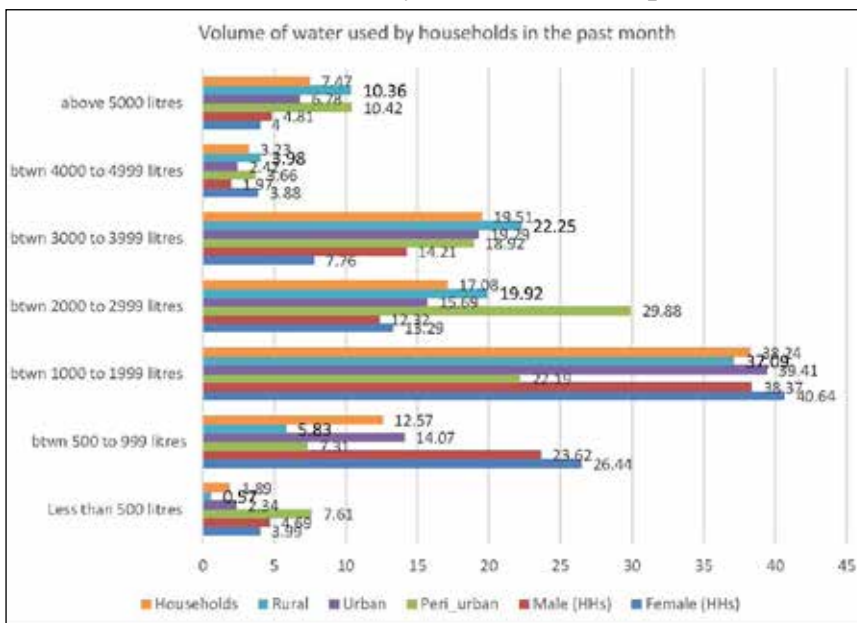


Source: KNBS 2015/2016

**Volumes for water used by households in the past 1 month**

Most households (38.2%), rural (37.1%), urban (39.4%) and peri-urban used between 1000-1999 litres of water per month compared to peri urban (22.2%). Similarly, female (40.6%) than male (38.4%) headed households have used between 1000 to 1999 litres of water in the past one month.

**Figure 4.3: Volumes of water used by households in the past month**

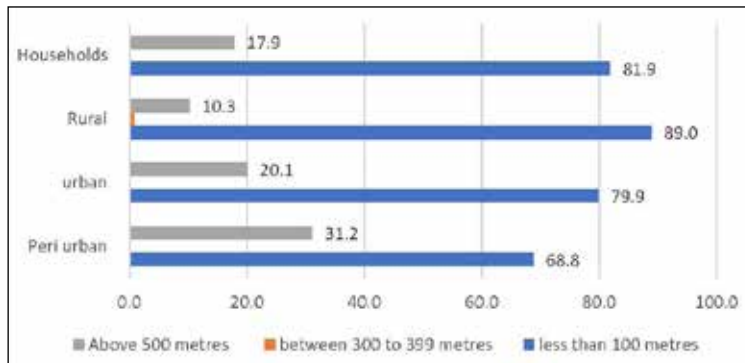


Source: KNBS 2015/2016

**Distance covered to water source and average time spend to and from the water source**

Majority of the households (81.9%) as well as those in rural, urban and peri-urban areas covers less than 100 metres to water sources, meaning they have water within their premises or close to their compounds. See the figure below

**Figure 4.4: Distance covered to water sources by households**

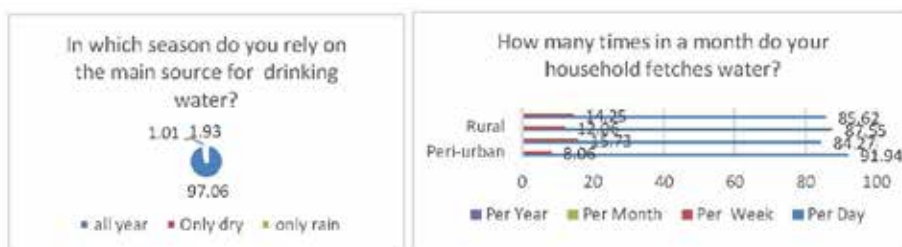


Source: KNBS 2015/2016

**Access and reliability of water sources**

Majority of households (97.1%) in the county relies on the main source of drink water all year round. Therefore, in case of the source drying up, households will lack water resulting into non observance of COVID-19 measures of hand washing. On the other hand, most households (85.6%) go to fetch drinking water from the sources per day both rural (87.6%) urban (84.3%) and peri-urban (92%) household. This means there may be more of interactions with other household members in areas where water sources are shared, this may lead to increase on infections of COVID-19 where COVID-19 guidelines of social distance and avoidance of crowded place may not be observed. It also implies that households may not be having water enough water storage facilities that can minimize number of trips to water points in a day putting them at risk of water shortages as well as saving on time for other economic activities.

**Figure 4.5: Access and reliability to water sources by households**



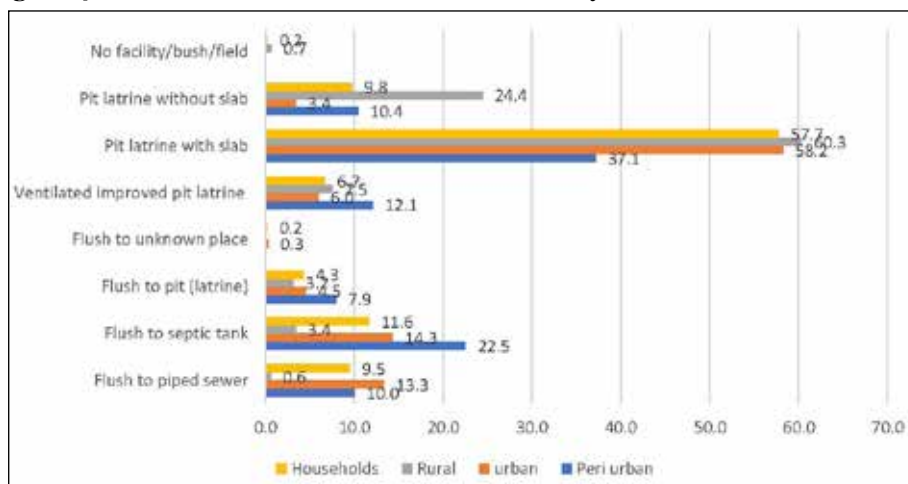
Source: KNBS 2015/2016

Source: KNBS 2015/2016

### Access to sanitation

Majority of the households (57.7%) both rural (66.3%) urban (58.2%) and peri-urban (37.1%) uses pit latrine with slab. There are also small proportions of urban (14.3%) and peri urban (22.5%) households who have access to septic tank as well as access to piped sewer (urban 13.3%) and peri urban (9.9%)

**Figure 4.6: Access to sanitation in Kiambu County**



Source: KNBS 2015/2016

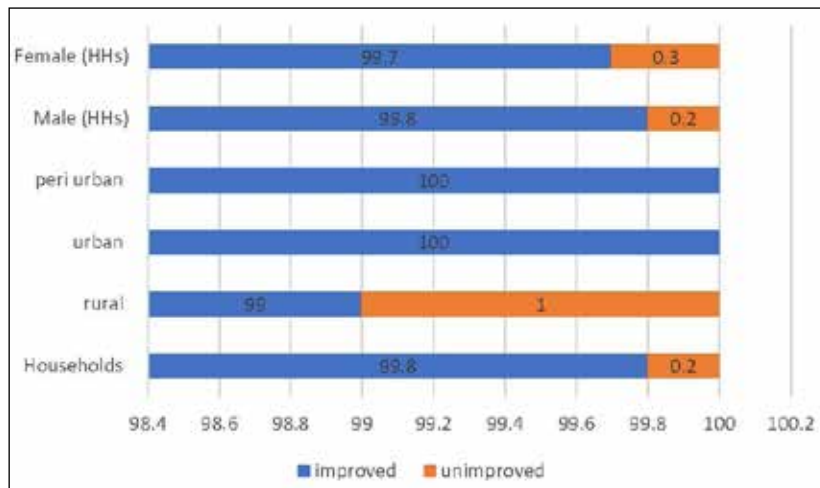
Access to sanitation is very important in maintaining hygiene and keeping infectious diseases away, good sanitation can help to detect the genetic residues of diseases in wastewater as those who are infected are thought to shed traces of the virus in faeces thus prompting for immediate action from the health officials.

### Access to improved and unimproved sanitation

Majority of the households (99.8%) have access to improved sanitation facilities<sup>3</sup>. This is also similar among rural, urban and peri-urban and both male and female headed households.

3 Improved sanitation includes; flush to piped sewer, flush to septic tank, flush to pit (latrine), flush to somewhere else, flush to unknown place, ventilated improved pit latrine, pit latrine with slab, pit latrine without slab). Unimproved sanitation includes; composting toilet, bucket toilet, hanging toilet/hanging, no facility/bush/field, others

**Figure 4.7: Access to improved and unimproved sanitation by households**

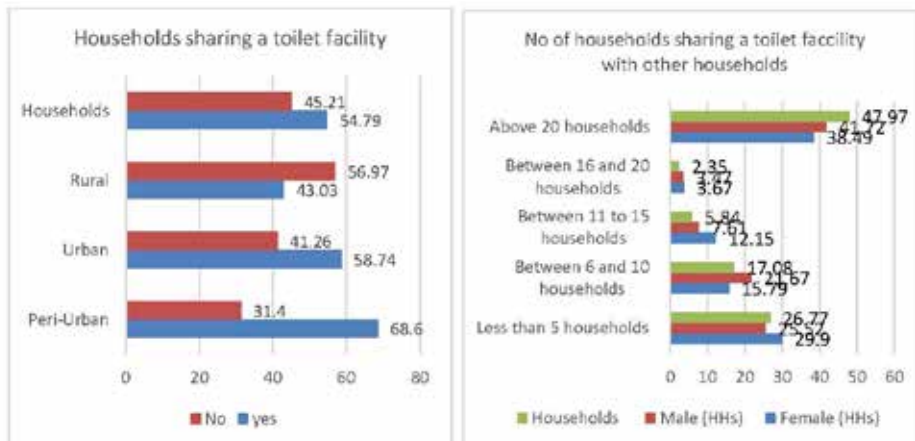


Source: KNBS 2015/2016

### Sharing of a toilet facility

Additionally, more than half of the households (54.8%) do share a toilet facility with other households, this is lower in rural (43%) compared to urban (58%) and peri-urban (68.6%). On the other hand, most of households (48%) share a toilet facility with more than 20 households (male headed households 41.7 per cent and female headed households 38.5%).

**Figure 4.8: Number of households sharing a toilet facility**



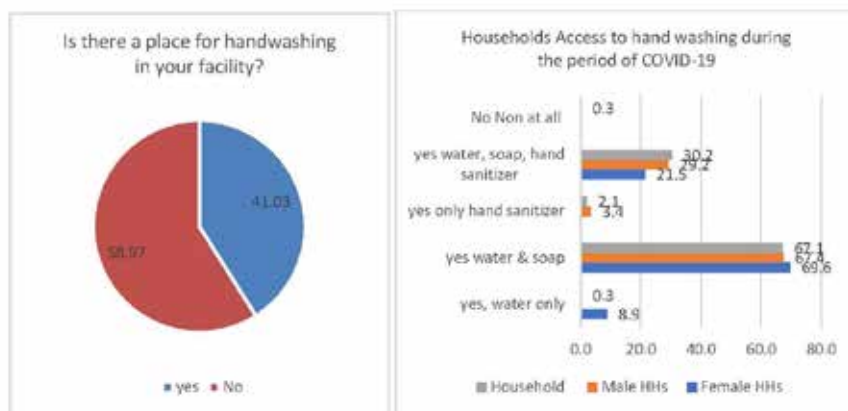
Source: KNBS 2015/2016

Source: KNBS 2015/2016

### Access to WASH during the COVID-19 period

WASH has been identified very important in helping to curb transmission of infectious diseases, currently most households (59%) do not have a handwashing facility in their households. Despite this most households (67.1%) have access to WASH (Water and soap) during this period of COVID-19. This is more among female (69.6%) than male (67.4%) headed households. Additional 30.2 per cent of the households having access to both water, soap and hand sanitizer.

**Figure 4.9: Access to wash during COVID-19 period**



Source: KNBS 2015/2016

Source: KNBS 2015/2016

More of hand washing should be emphasized especially to those who are not observing hand hygiene to help decrease the spread of the virus, this should be facilitated by provision of water, soap/hand sanitizer to households

### 4.2 Opportunities with COVID-19 in Various Sectors

- COVID-19 has highlighted the need to maintain a clean safe water, proper sanitation and hand hygiene which places more demand on water and therefore the county needs to leverage on lessons learned from COVID-19 by improving its water and sanitation coverage.

### 4.3 Emerging Issues

- The County has provided wash taps within shops in the town centre and handwashing facilities in County and sub-County offices.
- They have provided 10 sanitizing booths at border points – with neighboring Counties and Countries.
- They have purchased 1000-litre tanks that were placed in every market to promote handwashing. Also, encouraged shopkeepers to put in place water tanks and hand wash at their doorsteps.

## Key messages

Frequent and correct hand hygiene has been emphasized by WHO as one of the measures to curb transmission of COVID-19. This has placed a higher demand for water more so at the households, health care facilities, marketplaces, public places and among essential services providers.

- (i) Most households in the county have higher access to improved sources of water both in rural (80.9%), urban (94.9%) and peri-urban (100%). Clean and safe water guarantees good health leading to low health expenditures among households.
- (ii) There is access higher connectivity to piped water by households both in rural (54.5 per cent), urban (76.1 per cent) and peri-urban areas (92.1 per cent). This means high revenue from piped water for the county government. Similarly, it also implies high access to clean and safe water thus preventing water borne diseases.
- (iii) Access to improved sanitation remains high in the county both in rural (99.3 per cent), urban (100 per cent) and peri-urban households (100 per cent).
- (iv) Sharing of a toilet facility with other households is common among households, this is more in urban (58.6 per cent), peri-urban (68.6 per cent) compared to rural areas (43 per cent). Toilet sharing puts households at risk of contracting COVID-19, and other infectious diseases in cases where proper toilet hygiene is not maintained.
- (v) There is a higher access to hand washing, with majority of households in urban (47.1 per cent) having access to a place for hand washing. Access to WASH (water and soap) 30.2 per cent of the households had access to both water, soap and hand sanitizer during this period of COVID-19. This minimizes the risks of infections.
- (vi) The most commonly used sources of energy for cooking by households is liquified (35.4%) and followed shrubs and straw (24.1%)
- (vii) Furthermore, most households dispose their households solid waste in the compound (31.7%).
- (viii) Further only 9.8 per cent of the household solid waste is collected by the county government for disposal, while a small percentage is collected by private companies for safe disposal This means that only a small portion of household solid waste is safely disposed, thus exposing many households to environmental and health hazards.
- (ix) Further, only a small proportion of households (0.81 per cent) in the county have experience droughts or floods in the past year.

## 4.4 Recommendations

The recovery strategy recommends the following strategies for implementation:

- Expand and rehabilitate the existing piped water connection infrastructure to help increase access to water.
- Expand/increase water supply through construction of Dams, Treatments Plants, drilling of boreholes and rainwater harvesting

- The county to invest in additional water distribution infrastructures.
- Increase water supply in households, institutions and public places through drilling of boreholes in all the sub-counties.
- Develop and implement guidelines for utilization of funds by community water projects.
- Promote partnership with Private Sector and Nonstate Actors in water resource provision and management.
- Fast-track and rehabilitate stalled water project.
- Promote good governance on water resource management Increasing investment in development and maintenance of water harvesting structures.
- Provision of water tanks especially to special groups and institutions to help increase access to water.
- Develop effective human resources for the water sector to ensure quality of water service.
- Promoting adoption of appropriate technologies in protection and conservation of catchment areas.
- The County to work with other stakeholders to undertake water resources management.
- Strengthening and supporting community institutions including Water Users Associations (WRUAs), Community forest Associations, farmers groups' among others, in catchment conservation and protection.
- Gazette wetlands as public land to prevent encroachment.
- Rehabilitate the water catchment areas.
- Expand sewer infrastructure to accommodate more households for access to safe sanitation and revenue generation.
- Improve access to safe and improved toilets in schools, health care facilities, workplaces and public places.
- Support the implementation of Community Led Total Sanitation (CLTS) initiatives.
- Create public awareness on the importance of connecting to sewer system.
- Provide personal protective equipment to staff working in water and sanitation sector for maximum safety and uninterrupted service delivery during this period of COVID-19
- Promote the importance of handwashing and construct WASH facilities to increase access at the household level.
- Enforce the WASH regulation of having toilets in all public facilities such as supermarkets, hotels and banks, among others.
- Sensitize the public on the importance of WASH.
- Promote irrigation farming by provision of water for irrigation.

## 5. Manufacturing, Trade and MSMEs

### 5.1 Characteristic of Manufacturing Sector

#### a) *Manufacturing sector*

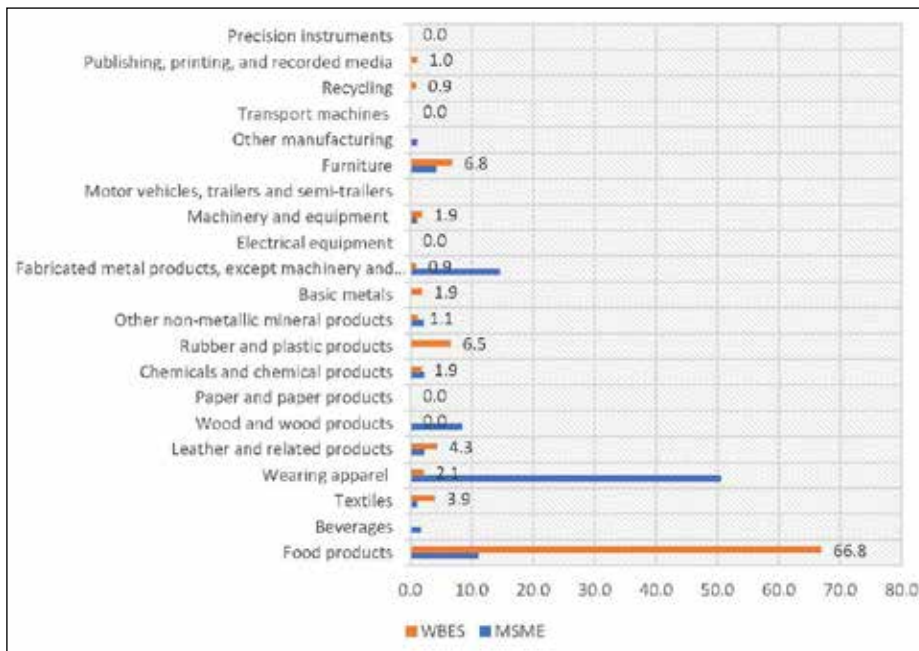
Kiambu County has 11,360 establishments involved in manufacturing activities which comprise of 11 per cent of a total of 103,714 firms (KNBS, 2016). In terms of size 10,512 (92.5%) are micro, 547 (4.8 per cent) are small, 194 (1.7%) are medium and 108 (0.9 per cent) are large enterprises. The main drivers of the economy of the county include agriculture (31%), services (40%), and manufacturing (12%) (GCP, 2019).

#### *Sector of operation*

The KNBS, 2016 survey establishes the key sub-sectors that drive manufacturing as: wearing apparel (50.5%), Fabricated metal products, except machinery and equipment (14.5 per cent), food products (11.1%), wood and wood products (8.5%), among others. The World Bank Enterprise Survey (WBES) of 2019 compliments these findings and provides that additional evidence on the sub-sectors key to manufacturing (Figure 5.1). They include food products (66.8%), furniture (6.8%), rubber and plastic products (6.5%), among others. These are sub-sectors that are considered essential in dealing with COVID-19 are likely to experience increased activity with focus on food production, production of Personal Protective Equipment (PPEs) and hospital beds.



**Figure 5.1: Sector of operation in manufacturing**



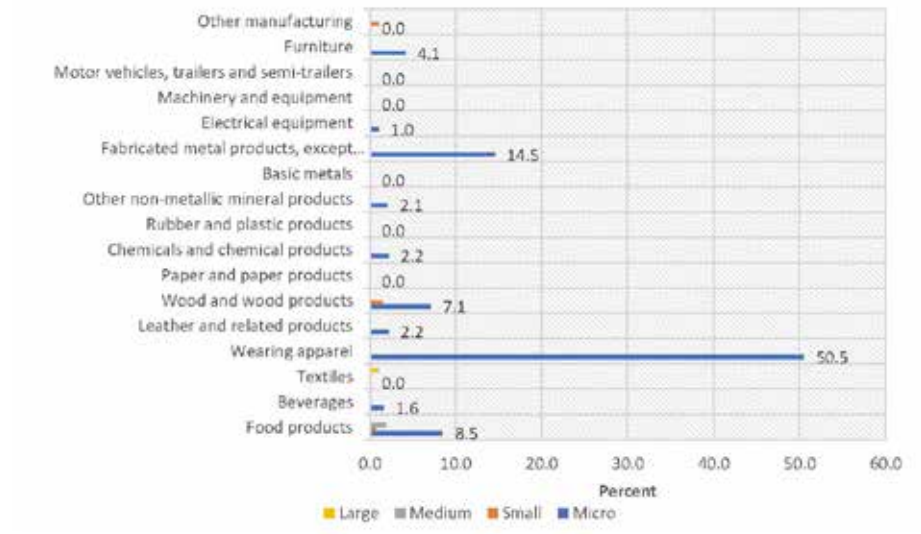
Source: KNBS, 2016 and WBES, 2019.

The key products useful in value addition and driving manufacturing include pineapples, avocado, milk, tea, coffee, and Irish potatoes, horticultural crops and textiles. Large industries driving manufacturing sector in the County are involved in agro-processing industries - Farmers Choice Ltd, Kenchic Co. Ltd, Brookside Dairies, Githunguri Dairies, Ndumberi Dairies, Limuru Milk and Palmside Dairies. Other industries in the County are involved in oil processing, bakery, motor vehicle assembly, hides and skins processing, clay works and shoe production. Examples of these industries include: Bidco Oil Industries, Thika Motor Vehicle dealers, Thika Pharmaceutical Manufacturers Limited, Devki Steel Mills, Broadway Bakeries, Kenblest Industry, Kel Chemicals, Thika Rubber Industries Limited, Macadamia Nuts, Campwell Industry and Kenya Tanning Extracts Limited, Clay works, Spinners and Spinners and the Bata Shoe Company in Limuru.

**Sector of operation by size**

Majority of the establishments in Kiambu County are micro in nature and operate in: wearing apparel (50.5%), Fabricated metal products, except machinery and equipment (14.5%), food products (8.5%), and wood and wood products (7.1%) (Figure 5.2).

**Figure 5.2: Manufacturing firms by sector and size**

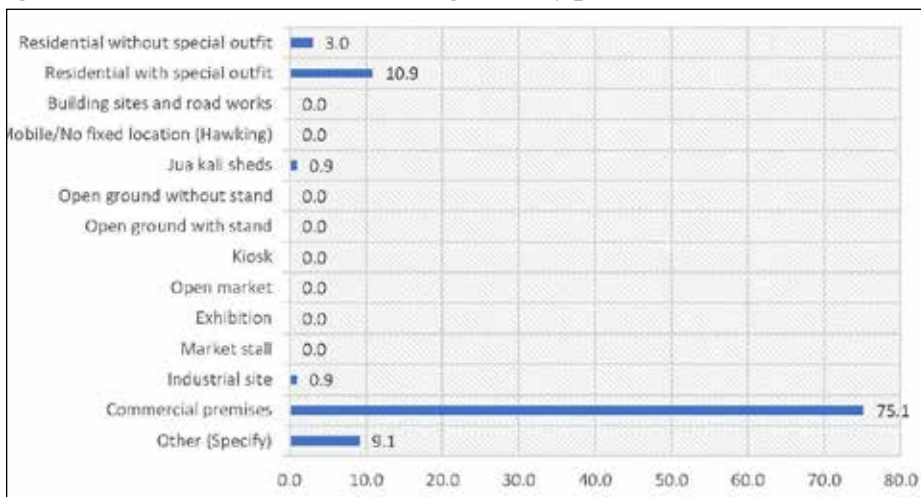


Source: KNBS (2016)

**Location of manufacturing firms by type of premises**

Common premises used by manufacturing firms in Kiambu County are commercial (75.1%), residential with special outfit (10.9%), residential without special outfit (3%), market stall (6.4%), industrial site (4.2%), open market (3.2%), and open ground without stand (3.2%) (Figure 5.3).

**Figure 5.3: Location of manufacturing firms by premises**



Source: KNBS (2016)

**Distribution of Manufacturing firms by gender and size**

Manufacturing establishments in Kiambu County are dominantly owned by both males (41.9%), with females (41.9%) while 16.2 per cent are jointly owned. In terms of micro-sized firms, 40.9 per cent are male owned, 45.3 per cent female owned and 13.8 per cent jointly owned. Small sized firms are largely jointly owned (53%) while the rest are male owned (47%). All medium sized enterprises are owned by males (100%) (Table 5.1).

**Table 5.1: Distribution of manufacturing firms by gender and size-N (per cent)**

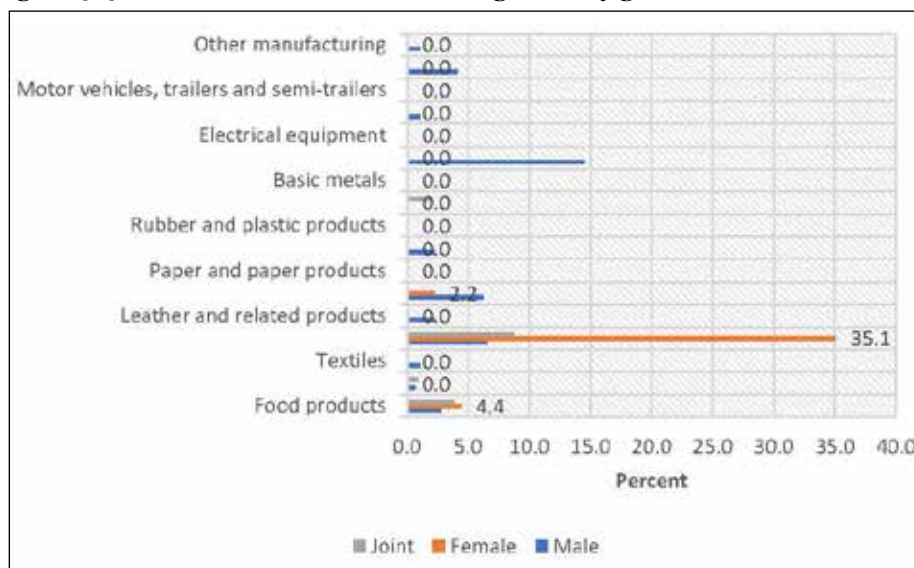
| Gender | A11          | Micro        | Small     | Medium    | Large       |
|--------|--------------|--------------|-----------|-----------|-------------|
| Male   | 4,759 (41.9) | 4,297 (40.9) | 257 (47)  | 108 (100) | 292 (25.4)  |
| Female | 4,761(41.9)  | 4,761 (45.3) | 0 (0)     | 0 (0)     | 457 (39.8)  |
| Joint  | 1,840 (16.2) | 1,454 (13.8) | 290 (53)  | 0 (0)     | 400 (34.8)  |
| Total  | 11,360 (100) | 10,512 (100) | 547 (100) | 108 (100) | 1,149 (100) |

Source: KNBS, 2016.

**Distribution of Manufacturing firms by gender and sector**

Majority of the sub-sectors in manufacturing are male dominated including fabricate metal products, except machinery and equipment (14.5%), wearing apparel (6.6%), wood and wood products (6.3%), furniture (4.1%). Females are mostly found in the wearing apparel (35.1%) food products (4.4%), and wood and wood products (2.2%) (Figure 5.4).

**Figure 5.4: Distribution of manufacturing firms by gender and sector**



Source: KNBS (2016)

In terms of employment, the manufacturing sector employs more men (61.4%) than women (38.6%). Most men are found in the large enterprises (27.6%), while 17.8 per cent are found in the micro-sized enterprises. Majority of the women are also predominantly in the large enterprises (14.1%) and medium enterprises (12.4%) (Table 5.2).

**Table 5.2: Employment by gender and size for manufacturing firms**

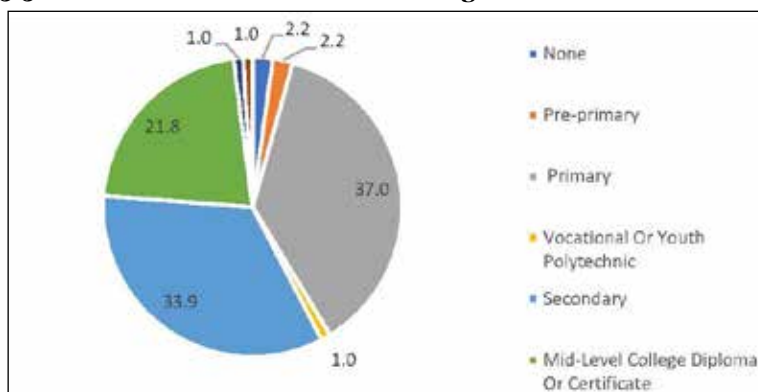
| Number of employees | Micro            | Small           | Medium           | Large            | Total            |
|---------------------|------------------|-----------------|------------------|------------------|------------------|
| Male                | 14,410<br>(17.8) | 5,973<br>(7.4)  | 7,071<br>(8.7)   | 22,378<br>(27.6) | 49,832<br>(61.4) |
| Female              | 7,532<br>(9.3)   | 2,268<br>(2.8)  | 10,066<br>(12.4) | 11,404<br>(14.1) | 31,271<br>(38.6) |
| Total               | 21,943<br>(27.1) | 8,241<br>(10.2) | 17,137<br>(21.1) | 33,782<br>(41.7) | 81,103<br>(100)  |

Source: KNBS (2016)

**Education levels of Manufacturing firm owners**

Figure 5.5 depicts the education levels of manufacturing firm owners as follows: primary (37%), secondary (33.9%), mid-level college diploma or certificate (21.8%), pre-primary (2.2%), degree (1%), among others. About 2.2 per cent of manufacturing owners do not have a form of formal education.

**Figure 5.5: Education levels of manufacturing firm owners**

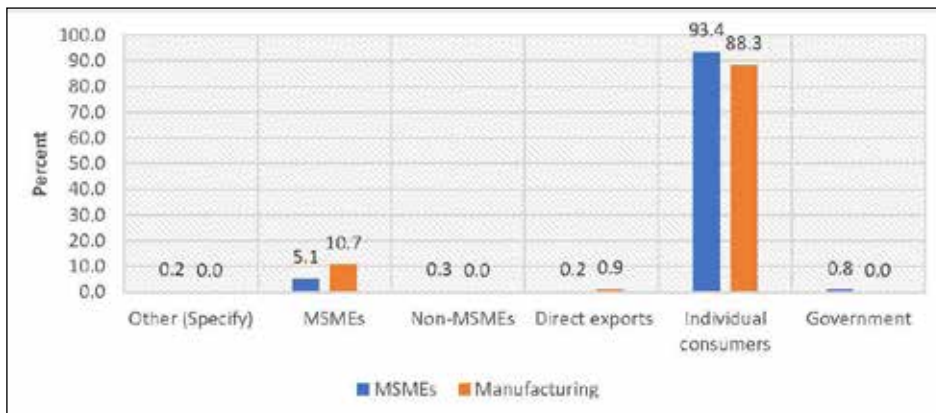


Source: KNBS (2016)

**Source of markets**

Majority of manufacturing firms and MSMEs in general rely on individual consumers for markets at 88.3 per cent and 93.4 per cent, respectively (Figure 5.6).

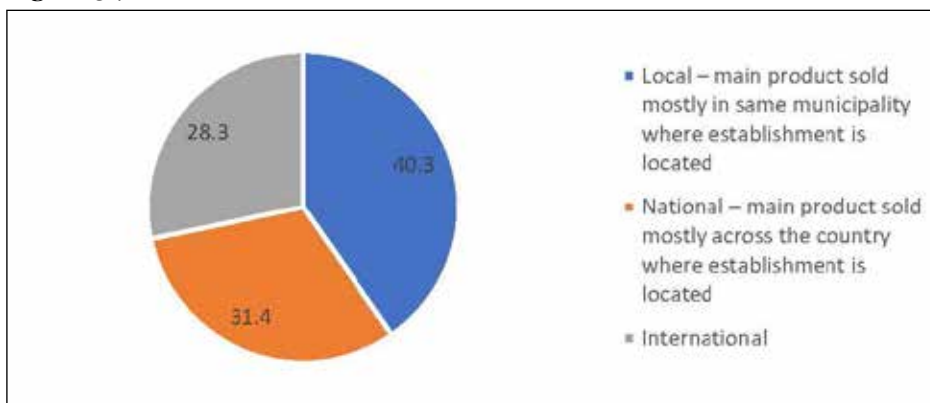
**Figure 5.6: Source of markets**



Source: KNBS (2016)

MSMEs are also an important source of markets to these sectors. In addition, manufacturing firms and MSMEs are also involved in external markets at 0.9 per cent and 0.2 per cent respectively. This means exogenous shocks as a result of COVID-19 are likely to affect these sectors. The WBES, 2019 also echoes the same with 28.3 per cent of manufacturing firms sourcing for markets internationally (Figure 5.7).

**Figure 5.7: Source of markets**

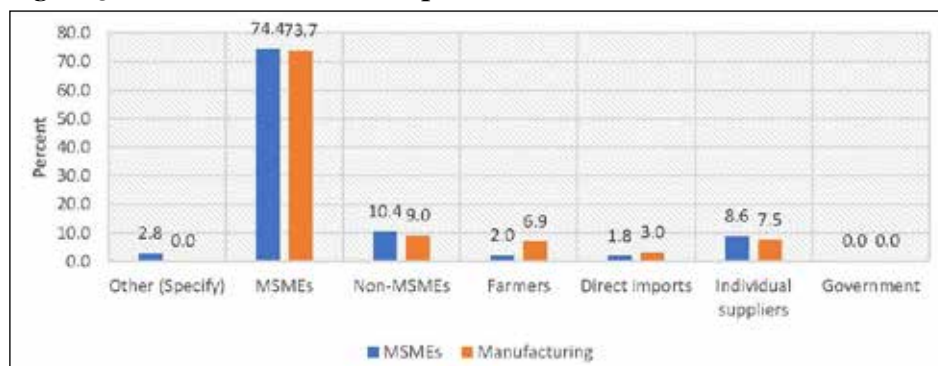


Source: WBES (2019)

### **Source of material inputs**

Overall, manufacturing establishments and MSMEs source for material inputs from amongst MSMEs at 73.7 per cent and 74.4 per cent respectively (Figure 5.8). Non-MSMEs, individual suppliers as well as farmers are also important to the supply of inputs. Firms in manufacturing (3%), and MSMEs (1.8%) also source for inputs from direct imports. Disruptions in the external source markets, therefore, could potentially have negative implications to both firms in manufacturing and MSME operations in Kiambu County.

**Figure 5.8: Source of materials inputs**



Source: KNBS (2016)

**Level of innovation by firms in Manufacturing**

Manufacturing establishments in Kiambu County were involved in both product, process and market innovations. More product innovations are seen under the micro category at 2 per cent, and process (2%). Fewer innovations are observed in the small category at a rate of 1.3 per cent for product, 0.7 per cent for process and 0.7 per cent for market, respectively (Table 5.3).

**Table 5.3: Level of innovation by firms in manufacturing**

| Type of innovation | Micro      |               | Small   |           | Medium    |           | Large |       | Total     |              |
|--------------------|------------|---------------|---------|-----------|-----------|-----------|-------|-------|-----------|--------------|
|                    | Don't know | No            | Yes     | No        | Yes       | No        | Yes   | No    |           | Yes          |
| Product            | 108 (0.9)  | 10,176 (89.6) | 228 (2) | 398 (3.5) | 149 (1.3) | 194 (1.7) | 0 (0) | 0 (0) | 108 (0.9) | 11,360 (100) |
| Process            | 108 (0.9)  | 10,176 (89.6) | 228 (2) | 472 (4.2) | 75 (0.7)  | 194 (1.7) | 0 (0) | 0 (0) | 108 (0.9) | 11,360 (100) |
| Market             | 108 (0.9)  | 10,405 (91.6) | 0 (0)   | 472 (4.2) | 75 (0.7)  | 194 (1.7) | 0 (0) | 0 (0) | 108 (0.9) | 11,360 (100) |

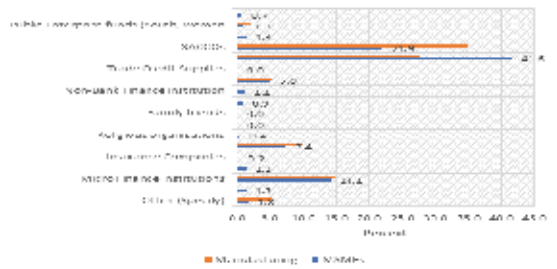
Source: KNBS (2016)

**Access to credit for Manufacturing and MSMEs firms**

According to the MSME 2016 survey, 67.3 per cent of MSMEs and 61 per cent of those in manufacturing applied for credit. Manufacturing firms in Kiambu County mainly source their credit from SACCOs (35%), commercial banks (27.7%), MFIs (14.9%), self help groups (9.9%), rotating savings and credit associations (5.2%). MSMEs source their financing from: commercial banks (41.6%), SACCOs (21.9%), MFIs (14.1%), and self help groups (7.4%) (Figure 5.9).



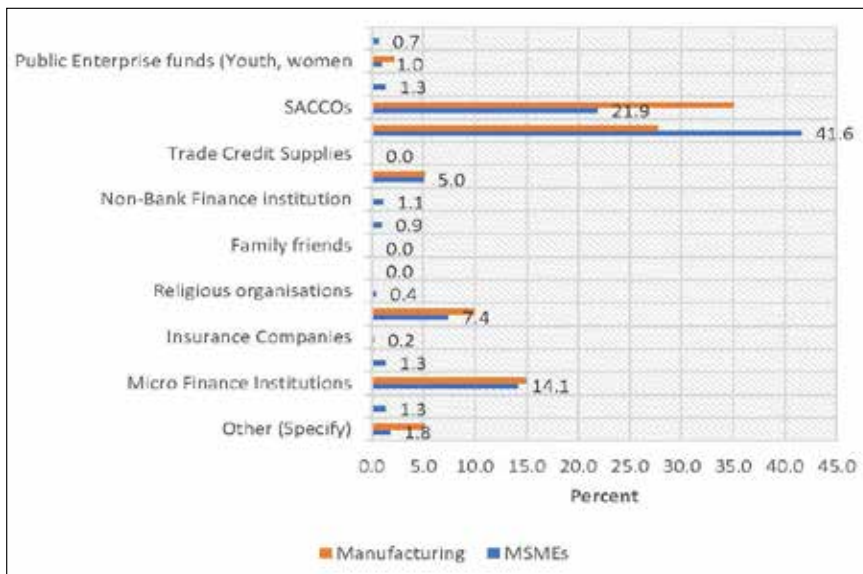
**Figure 5.9: Sources of finance**



Source: KNBS, 2016

Recent evidence from FinAccess 2019 provides further insights on sources of credit for businesses in Kiambu County. Businesses commonly obtain credit from the conventional sources such as family/neighbour (41.4%), shops (35.8%), obtaining credit in kind in form of goods from shopkeepers (13.5 per cent), groups/chama (13.5%), SACCO (7.6%), employer (6%), personal/business loans from banks (5.5%), government (1.7%) and shylocks/money lenders (1.4%). Emerging sources of credit for businesses in Kiambu county include mobile money (24.6%) and digital loans (42.8%) (Figure 5.10).

**Figure 5.10: Recent sources of credit**

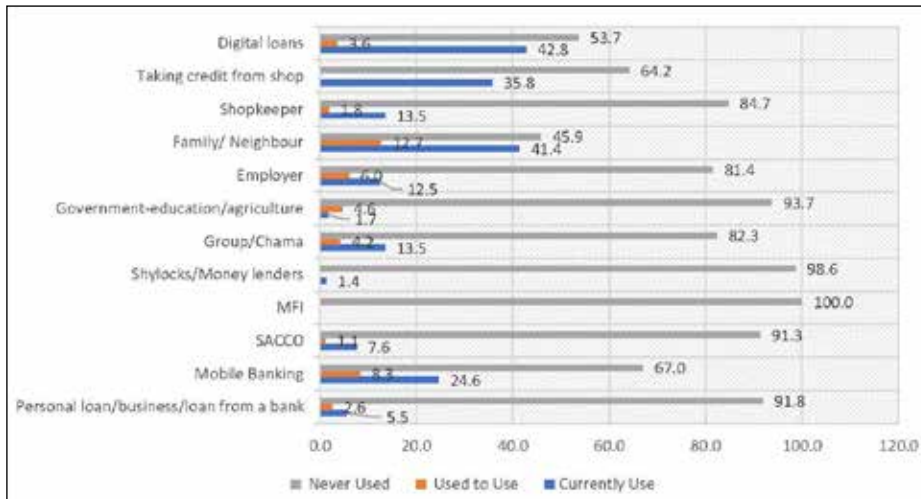


Source: FinAccess (2019)

**Purpose of credit**

As depicted in figure 5.11, manufacturing firms require credit for: working capital (47.9%), refurbishing business (35.5%), purchase inventory (11.7%), and non-business purposes (4.9%). MSMEs require businesses for: working capital (47.9%), refurbishing business (28.9%), purchase inventory (13.2%), non-business purpose (8.8%), and for starting another business (2%).

**Figure 5.11: Main purpose of credit**

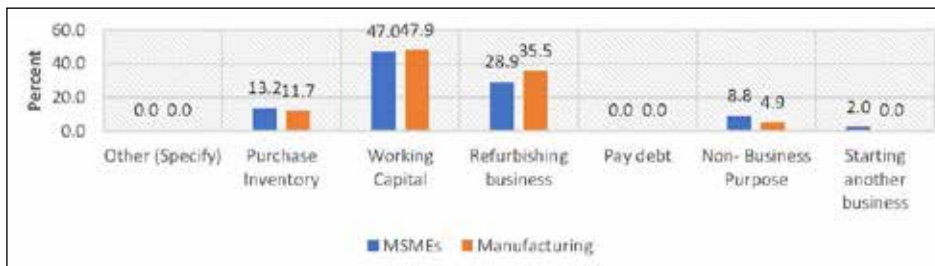


Source: KNBS, 2016

**Constraints faced by manufacturing firms**

The major constraints faced by manufacturing firms in Kiambu County are shown in Figure 5.12: lack of markets (24.2%), licenses (19.9%), poor roads/transport (14.5%), local competition (6.8%), poor security (6%), and power interruption (4.1%).

**Figure 5.12: Constraints faced by manufacturing firms**



Source: KNBS (2016)

**Industrial Parks/ Jua Kali Sheds**

There is one industrial park (special economic zone) in Kiambu County-Tatu city. In addition, there are 200 Jua kali sheds/bodaboda and 30 Jua kali associations.

**Markets**

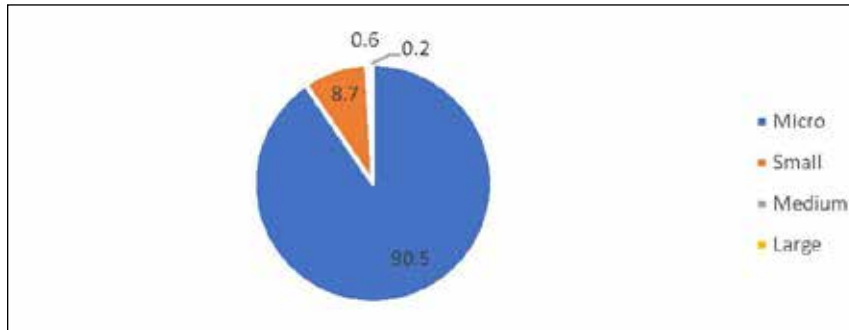
There are 118 designated markets in Kiambu County.



**Micro Small and Medium Enterprises (MSMEs)**

Kiambu County has 103,714 establishments<sup>4</sup> with 93,814 (90.5%) being micro, 9,038 (8.7%) are small, 657 (0.6%) are medium and 205 (0.2%) are large enterprises (KNBS, 2016) (Figure 5.13).

**Figure 5.13: Distribution of MSMEs by size**

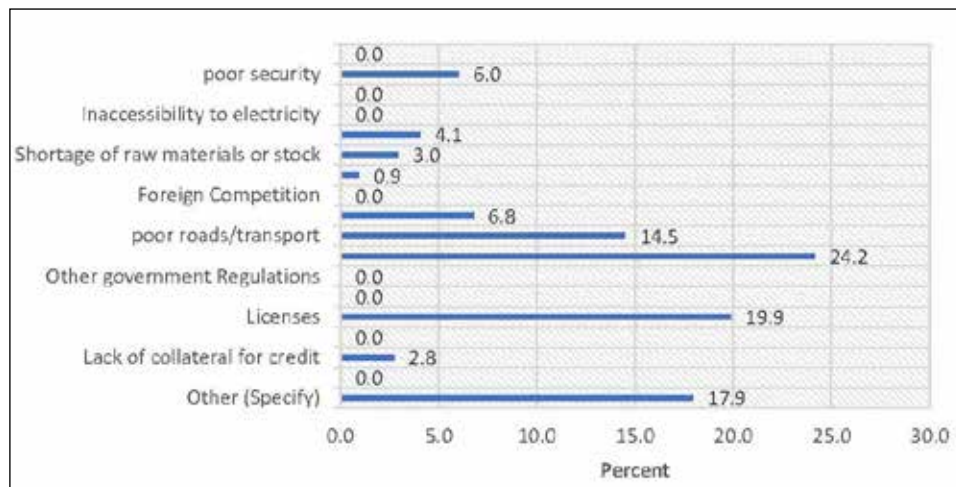


Source: KNBS, 2016.

**Sector of operation by MSMEs**

Majority of MSMEs in Kiambu County operate in the wholesale and retail trade, repair of motor vehicles and motorcycles (53.8%); manufacturing (11%), arts, entertainment and recreation (10%), and accommodation and food services (8.8%) (Figure 5.14). Ideally, these are the sectors that have been affected most by the pandemic and need focus in achieving re-engineering and recovery.

**Figure 5.14: Sector of operation by MSMEs**



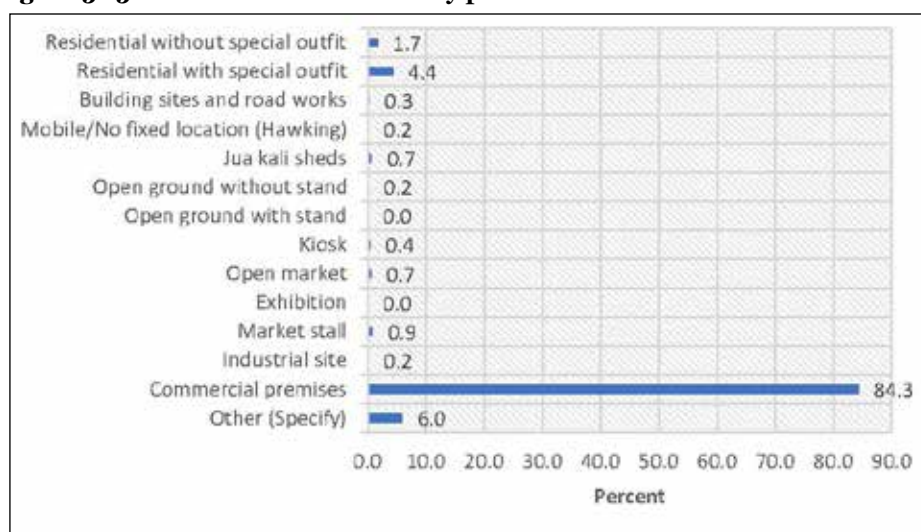
Source: KNBS (2016)

4 After applying weights

**Location of the businesses by type of premises**

MSMEs in Kiambu County are largely located in commercial premises (84.3%), residential with special outfit (4.4%), and residential without special outfit (1.7%) (Figure 5.15). According to the May 2020 KNBS COVID\_19 survey, 90.6 per cent of the non-farm businesses attributed non-payment of household rental obligations to reduced incomes/earnings while 9.4 per cent attributed the same to delayed incomes/earnings. For those involved in farm businesses, all respondents attributed the same to reduced incomes/earnings.

**Figure 5.15: Location of businesses by premises**



Source: KNBS, 2016

**Distribution of MSMEs by gender and size**

Table 5.4 shows the distribution of MSMEs in Kiambu County by gender: 48.3 per cent are male owned, 32.7 per cent are female owned, while 19 per cent are jointly owned (male/female). For Micro establishments; 48.3 per cent are male owned, 35.3 per cent are female owned, while 16.4 per cent are jointly owned. Male owners also dominate ownership among small sized establishments at 48 per cent, females own 8.4 per cent, and 43.5 per cent are jointly owned. Considering large sized establishments, ownership is fully controlled by males (100%).

**Table 5.4: Distribution of MSMEs by gender and size -N(%)**

| Gender | A11           | Micro         | Small        | Medium    | Large     |
|--------|---------------|---------------|--------------|-----------|-----------|
| Male   | 50,084 (48.3) | 45,296 (48.3) | 4,340 (48)   | 243 (37)  | 205 (100) |
| Female | 33,884 (32.7) | 33,121(35.3)  | 763 (8.4)    | 0 (0)     | 0 (0)     |
| Joint  | 19,746 (19)   | 15,397 (16.4) | 3,936 (43.5) | 414 (63)  | 0 (0)     |
| Total  | 103,714 (100) | 93,814 (100)  | 9,038 (100)  | 657 (100) | 205 (100) |

Source: KNBS (2016)

In terms of employment, the micro sized establishments employ more people (43.3%) compared to small (34.1%), medium (9.9%) and large (12.7%) (Table 5.5). Micro firms employ 23 per cent male and 20.3 per cent female and small sized employ 18.5 per cent male and 15.6 per cent female. Equally, more men are employed among medium and large establishments at 5.3 per cent and 7.8 per cent while females include 4.7 per cent and 5 per cent respectively. Overall, more men (54.5%) are employed by MSMEs in Kiambu County than women (45.5%).

**Table 5.5: Employment by gender and size- N(per cent)**

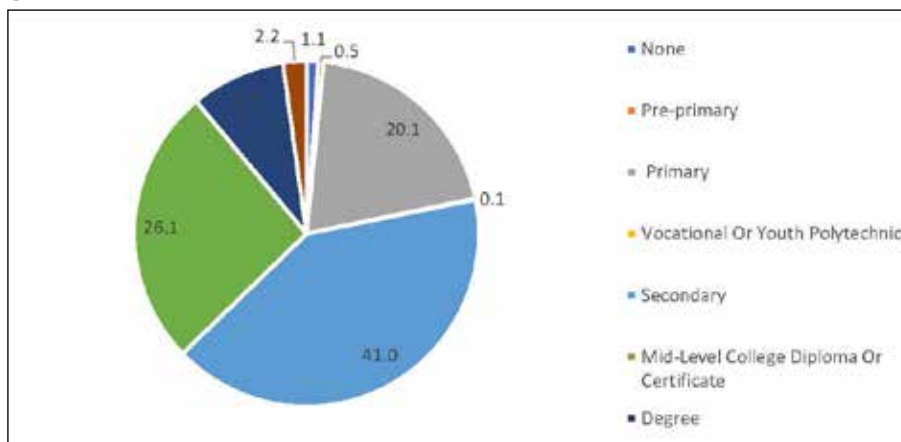
| Gender | Micro          | Small          | Medium       | Large         | Total          |
|--------|----------------|----------------|--------------|---------------|----------------|
| Male   | 111,805 (23)   | 89,976 (18.5)  | 22,543 (5.3) | 37,672 (7.8)  | 264,996 (54.5) |
| Female | 98,477 (20.3)  | 75,668 (15.6)  | 22,757 (4.7) | 24,166 (5)    | 221,068 (45.5) |
| Total  | 210,282 (43.3) | 165,644 (34.1) | 48,300 (9.9) | 61,838 (12.7) | 486,064 (100)  |

Source: KNBS, 2016

**Education levels of MSME owners**

The education levels of MSME owners in Kiambu County are shown in figure 5.16 as follows: secondary (41%), mid-level college diploma or certificate (26.1%), degree (8.9%), and pre-primary (2.2%).

**Figure 5.16: Education levels of MSME owners**



Source: KNBS, 2016

**Level of innovation by MSMEs**

Table 5.6 presents the levels of innovation in Kiambu County by MSMEs according to size. Overall, there were low levels of innovation across MSMEs with 4.7 per cent involved in product, 1.1 per cent for process, and 0.5 per cent in market innovation for micro-sized enterprises. Regarding small-sized enterprises, 1.3 per cent engaged in product, 0.9 per cent process and 0.7 per cent market innovation. With regards to medium sized enterprises,

none were involved in any form of innovation while for large enterprises 0.2 per cent were involved in product, process and market innovations respectively.

**Table 5.6: Level of innovation by MSMEs**

| Type of Innovation | Micro             |            |               |             | Small             |            |             |             | Medium    |       | Large      |       |           | Total         |
|--------------------|-------------------|------------|---------------|-------------|-------------------|------------|-------------|-------------|-----------|-------|------------|-------|-----------|---------------|
|                    | Refused to answer | Don't know | No            | Yes         | Refused to answer | Don't know | No          | Yes         | No        | Yes   | Don't know | No    | Yes       |               |
| Product            | 0 (0)             | 182 (0.2)  | 87,635 (85.8) | 4,758 (4.7) | 0 (0)             | 0 (0)      | 7,615 (7.5) | 1,334 (1.3) | 657 (0.6) | 0 (0) |            | 0 (0) | 205 (0.2) | 102,181 (100) |
| Process            | 0 (0)             | 182 (0.2)  | 91,250 (89.3) | 1,142 (1.1) | 0 (0)             | 0 (0)      | 8,055 (7.9) | 894 (0.9)   | 657 (0.6) | 0 (0) | 0 (0)      | 0 (0) | 205 (0.2) | 102,181 (100) |
| Market             | 0 (0)             | 182 (0.2)  | 91,873 (89.9) | 519 (0.5)   | 0 (0)             | 0 (0)      | 8,186 (8)   | 763 (0.7)   | 657 (0.6) | 0 (0) |            | 0 (0) | 205 (0.2) | 102,181 (100) |

Source: KNBS (2016)

### E-commerce

Participation in e-commerce by households in Kiambu County is above the national average. About 9.2 per cent of the households participate in online e-commerce which is below a national average of 4.3 per cent (KPHC, 2019). In comparison, men participate more in online e-commerce (10.1%) than women (8.3%). With introduction of stay-at-home protocols due to COVID-19 online trade has been expected to thrive, a lot of impact will be felt in Kiambu County since more households participate in the same.

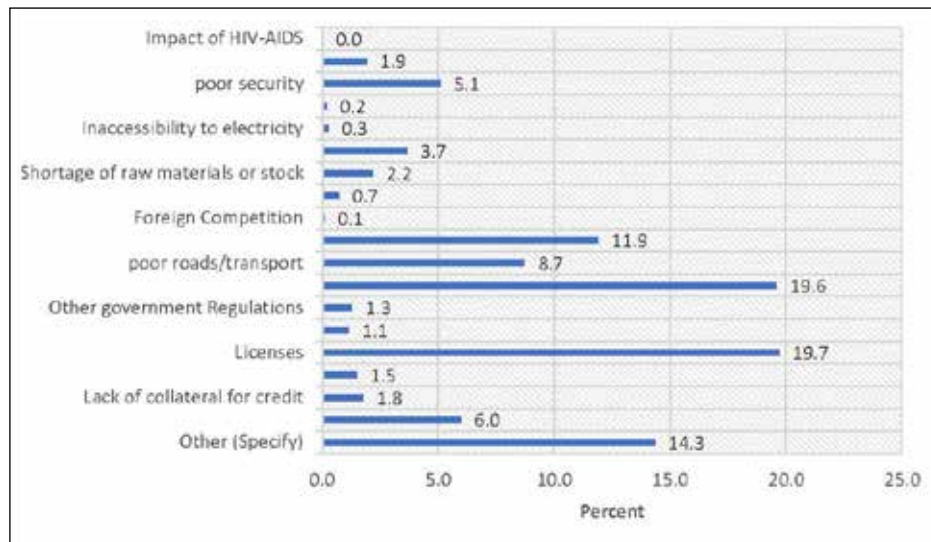
### Turnover tax

Only 17.1 per cent of MSMEs in Kiambu County (17,777) had a previous monthly turnover of above Ksh 83,333 which translates to Ksh 1 million a year. Ideally, this would be the establishments that are eligible for turnover tax with the new thresholds recently introduced vide the tax laws (Amendment) Act, 2020. The actual impact of this move may be difficult to estimate due to data challenges on actual revenue streams and the number of establishments that comply with the same.

### Constraints faced by MSMEs

The key constraints faced by MSMEs in Kiambu County include: licenses (19.7%), lack of markets (19.6%), local competition (11.9%), poor roads/transport (8.7%), poor security (5.1%), and power interruption (3.7%) (Figure 5.17).

**Figure 5.17: Main constraints faced by MSMEs**



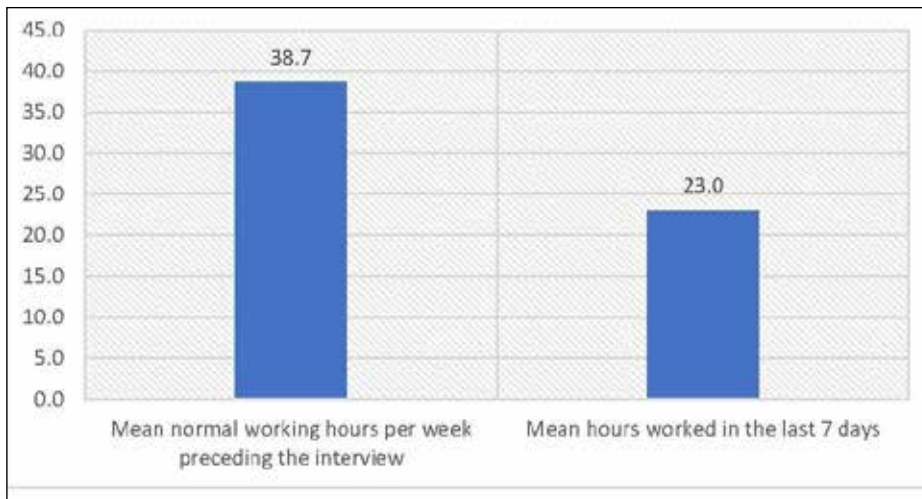
Source: KNBS (2016)

A study on County Business Environment for MSEs (CBEM) identified other constraints faced by MSMEs in Kiambu County as: financial and technical capacity, market environment, and worksite and related infrastructure (KIPPRA 2019 and 2022). On worksites, MSEs face inadequate and unequipped worksites, lack of public toilet facilities, lack designated areas for waste disposal, poor road infrastructure, frequent power interruptions. On technical capacity MSEs are characterized by low levels of innovation, lack of training and apprenticeship programme for artisans, fragmentation due to multiplicity of players who offer training and capacity building, and lack of monitoring and evaluation of training programmes. With the market environment, MSEs face inadequate market for their local products; stiff competition among themselves; and unfair trade practises which manifest through; contract enforcement, counterfeiting, dumping (substandard goods) and misrepresentation (through weight, price, ingredient). MSEs also face bottlenecks related to; insecurity; multiple licences and permits; numerous procedures for obtaining licenses; and shortage of raw materials.

### ***Effects of COVID-19 on household non-farm and farm businesses***

Figure 5.18 presents the effects of COVID-19 on household non-farm and farm businesses in Kiambu County. 66.7 per cent of the respondents report a decrease in their business activities due to the pandemic while 33.3 per cent were not affected. Equally 66.7 per cent of the respondents have had a decrease in their income due to COVID-19. This is an indicator that COVID-19 is already having a negative toll on the non-farm and farm businesses even though the situation is still evolving.

**Figure 5.18: Effects of COVID-19 on household non-farm and farm businesses**

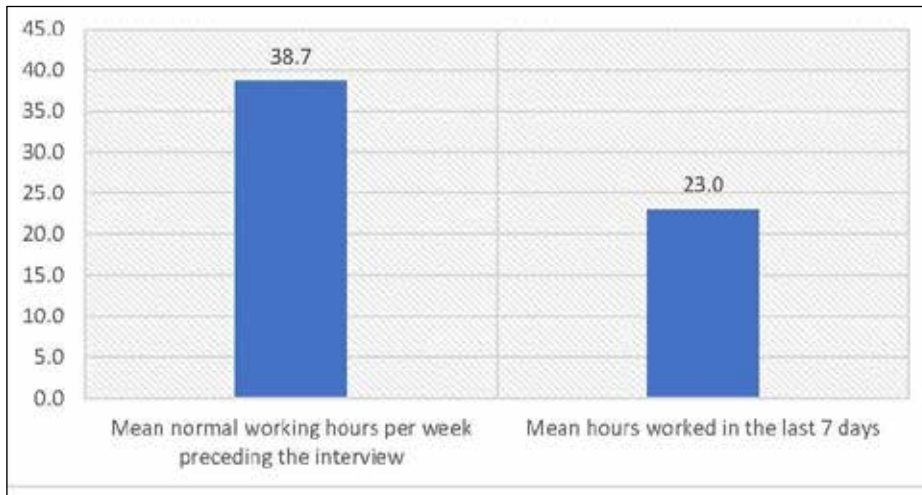


Source: KNBS, COVID\_19 Survey 2020

**Labour dynamics**

During the period considered in KNBS, COVID-19 Survey 2020, respondents reported a 15.7 hours in the mean working hours for household non-farm and farm businesses in Kiambu County which implies a deterioration in economic activities between the interview periods (figure 5.19). This could be as a result of services, agricultural and manufacturing activities considering this considerably form the main stay of the County.

**Figure 5.19: Labour dynamics on household non-farm and farm businesses**



Source: KNBS, COVID-19 Survey 2020

The survey also indicates the wholesale and retail trade sector lost 11.6 hours in usual and actual hours worked while accommodation and food services lost 17 hours. This is an

indicator of the adverse effects on the service sector of Kiambu County due to the pandemic which implies loss of productivity, output and employment. In addition, the manufacturing sector lost 10.4 hours.

**Key Messages:**

- (a) The key sectors that drive the economy of Kiambu include: Services, Agriculture and Manufacturing. Hence, support should be prioritized to these sectors to ensure re-engineering of the County economy.
- (b) The key sub-sectors that drive manufacturing in Kiambu County are wearing apparel; fabricated metal products, except machinery and equipment; food products; and wood and wood products.
- (c) The major constraints faced by manufacturing firms in Kambu County are: lack of markets, licenses, poor roads/transport, local competition, poor security, and power interruption.
- (d) The key constraints faced by MSMEs in Kiambu County include: licenses, lack of markets, local competition, poor roads/transport, and poor security.
- (e) Access to credit perennially remains a constraint to MSMEs which hinders growth and expansion of businesses, even more so now during the pandemic. There is need to provide financial support to MSMEs that have demand, employ large number of people, and those that provide essential goods and services.
- (f) COVID-19 presented opportunities that could be harnessed like development and support of innovations to address the pandemic. These include production of essential goods such as; masks, Personal Protective Equipment (PPEs), and sanitizers, disinfectants, canned foods, immunity boosting products, hospital beds and ventilators. As the pandemic subsides a strategy is required for smooth transition.
- (g) Manufacturing establishments must also adopt to cope with the new guidelines which could include rearranging floor plans to allow for social distancing.
- (h) Training and capacity building are important in assisting MSMEs to surmount the shocks faced during the pandemic but also allow for re-emergence.
- (i) In terms of re-engineering, there is need to consider establishing support measures to re-vitalize and re-open businesses that collapsed during the crisis within the county.

**5.2 Opportunities with COVID-19 in Various Sectors**

The following are some of the opportunities created by COVID-19 in trade, manufacturing and the MSMEs sector:

- (i) The County is looking forward to strengthen private partnerships to support businesses



- (ii) The County has approved to set an investment company that will connect people and manage their transaction with little involvement of the county government
- (iii) Plans to have locally managed cooperatives such as bacon and creameries to ensure employees are not paid below threshold levels
- (iv) Agro-processing for value addition with important areas of priority include dairy production, pineapples, beans, maize, coffee, tea, Irish potatoes, and leather and textiles production and processing.
- (v) The textile and wearing apparel sectors can be enhanced to provide PPEs for use within the County and potentially for the export market.
- (vi) The County is currently supplying between 5,000 to 10,000 masks everyday
- (vii) The County exports tea and coffee, and hence the County is supporting the activity by sustaining the processing during COVID-19 pandemic.
- (viii) The County proposes to establish a milk processing firm in every sub-county.
- (ix) High demand for Masks, Personal Protective Equipment (PPEs) and sanitizers. An opportunity to empower manufacturing firms exists.
- (x) COVID-19 has increased demand for locally produced goods. It is an opportunity for industry and MSMEs development and generation of jobs for the youth.

### **Effects of COVID-19 on this sector**

There have been both positive and negative effects of COVID-19 on this sector. These are outlined below:

- (i) Closure of some of the business affected traders since trade is considered as the main cash crop in the area.
- (ii) The County has reduced the market fees and relaxed enforcement of tax collection to support businesses
- (iii) The County is set to create a Fund of Ksh. 100 million to support MSMEs but it does not have the money.
- (iv) There has been an increased wave of innovations during the pandemic.
- (v) have been faced with declining sales and revenues due to depressed demand and low circulation of money in the County, which is caused by loss of incomes by the residents.
- (vi) There is a decrease in trade activities in the County due to restrictions on movements due to fear of attending physical markets, where there is fear of contracting the disease.
- (vii) Businesses are faced with challenges of increased costs resulting from the need to comply with new protocols in form of; provision of handwashing and sanitization points, wearing of masks even for workers, rearrangement of floor plans for social distancing especially for manufacturers and awareness creation.



### **5.3 Emerging Issues**

- (i) There has been reduced income from traders, manufacturers and MSMEs and a corresponding decrease in taxes collected from them. This will affect implementation of Kiambu County's planned activities due to reduced projected revenues.
- (ii) The need to identify and promote specific and emerging value chains as a result of COVID-19, and which Kiambu County has comparative advantage.
- (iii) Review all the ongoing interventions by the County and also the national government to assess their effectiveness and especially regarding trade, manufacturing and MSMEs.
- (iv) There is need for legislative amendments to ensure the Buy Kenya Build Kenya initiative is implemented at the County.

### **5.4 Recommendations**

To support trade, manufacturing and the MSMEs sector, the County will:

- (i) Increase of market share of products and services in the NMR, regional and international markets
- (ii) Develop and rehabilitation of key infrastructure in under-served locations.
- (iii) Leverage on NMR spur and expand its service industry
- (iv) Improve the business operating environment.
- (v) Provide world class infrastructure facilities and utilities to support manufacturing value addition investments and human settlements.
- (vi) Integrate ICT in the development and management of infrastructure and utilities.
- (vii) Leverage on the Jomo Kenyatta International Airport, Wilson Airport, and the Standard Gauge Railway as transport and logistics hubs.
- (viii) Ensure a safe and secure county supportive of endeavours of residents, visitors and investors.
- (ix) Invest in the Conservation of the Environment for Sustainable Development.
- (x) Conservation of wildlife and forest resources
- (xi) Concentrate on urban based economic activities such as industrial and manufacturing of garments, textiles, fisheries and tea, ICT, knowledge-based services and biotechnology targeting global/ international markets.

## 6. Infrastructure

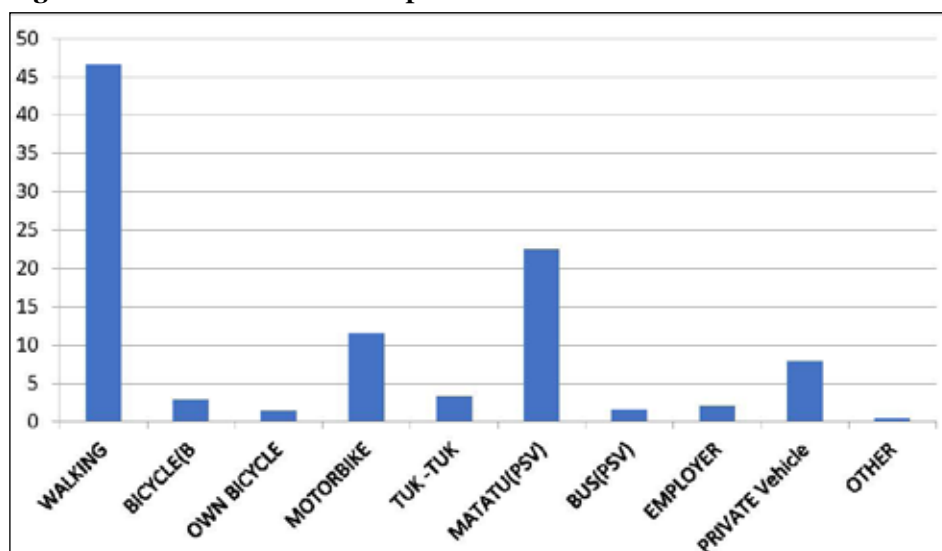
### 6.1 Transport Sector

Kiambu supplies services and labor to Nairobi and the cessation of movement in an out of Nairobi means that Kiambu has been seriously affected this. There are ongoing discussions on removal of trade barriers across the CEKEB to ease movement of goods across the counties.

#### 6.1.1 Characteristics of the sector

Majority of households own a bicycle (16.3 per cent) and a Car ownership is at 12.4 per cent (KNBS, 2019). motorcycle (6.9 per cent). The main means of transport used in the County is walking at 46.58 per cent, followed by PSV matatus at 22.51 per cent, motorbike 11.5, private car at 7.9 per cent and Tuk 3.29 per cent, figure 6.1, while 62.71 per cent of the population had not changed the main means of transport (KNBS, 2020b). On average, residents travel 5.7 kilometers to their workplace at an average cost of Ksh 76.5. For the commute to school, residents spend on average Ksh 2754.19 (KIHBS, 2015/16).

**Figure 6.1: Main means of transport**

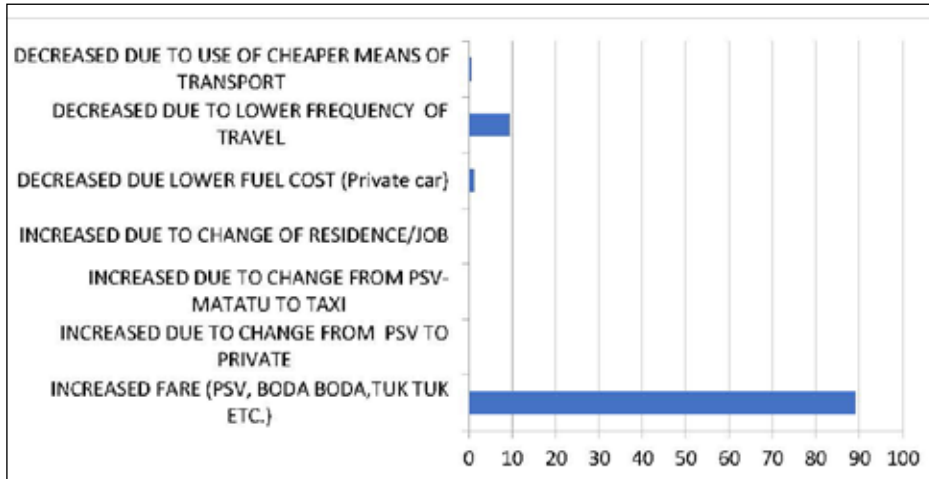


Source: KNBS COVID-19 Impact Survey 2020

The KNBS COVID-19 Impact Survey 2020 revealed that 74.58 per cent of the population reported a change in the cost of travel/commute, figure 6.2. The expenditure on transport increased by 63.33 per cent from Ksh 60 before February 2020 to Ksh 98 in May 2020 for

a one-way trip. The main change (89.09%) in transport cost was attributed to increased fares for PSV, BodaBoda and TukTuk.

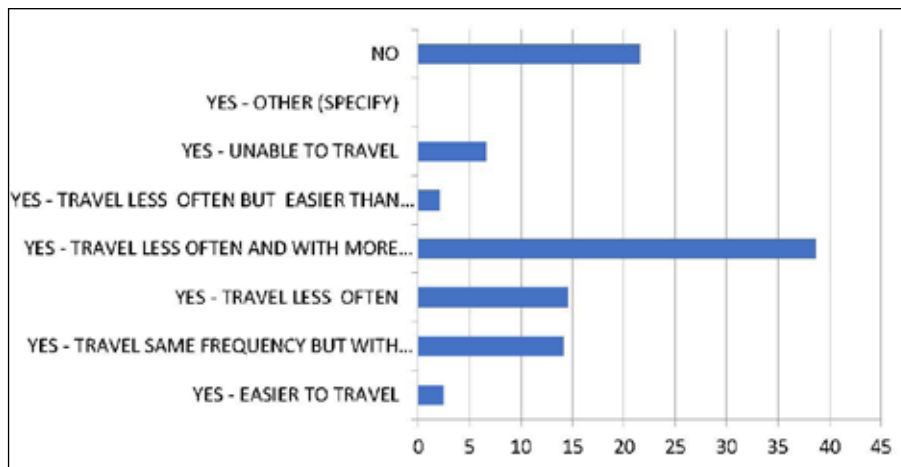
**Figure 6.2 : How has the cost of your MAIN travel changed**



Source: KNBS COVID-19 Impact Survey 2020-wave 2

Residents had changed their travel patterns with 14.57 per cent of the population traveling less often, while 14.1 per cent travelled with the same frequency but with some difficulty, and 6.61 per cent were unable to travel. However, 21.58 per cent of the population did not change their travel pattern (Figure 6.3).

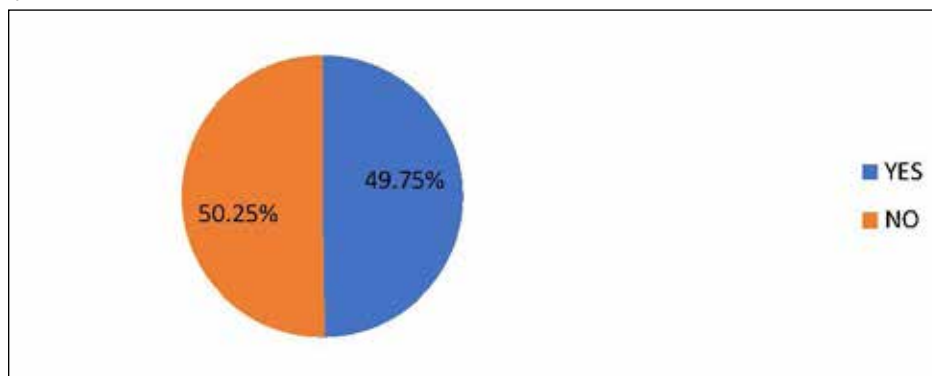
**Figure 6.3: Change in travel patterns**



Source: KNBS COVID-19 Impact Survey 2020-wave 2

The pandemic has affected delivery of goods and services for 49.75 per cent of households.

**Figure 6.4: Has delivery of your household goods and services been affected by COVID-19?**



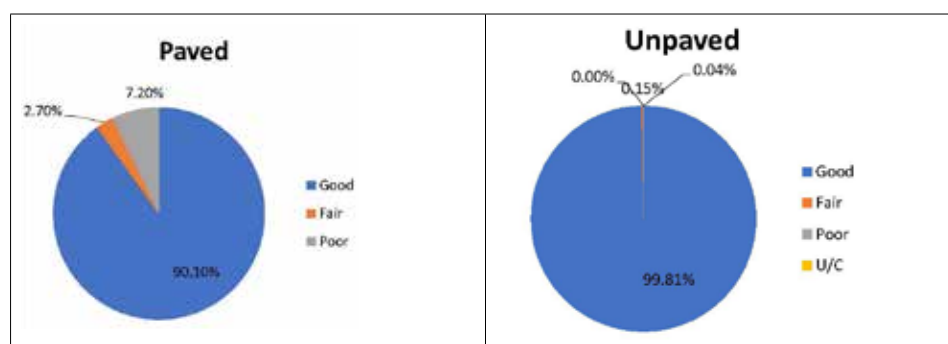
Source: KNBS COVID-19 Impact Survey 2020-wave 2

The County was allocated a total of Ksh 317,998,559 from the Road Maintenance Levy Fund towards road maintenance in the Financial 2017/18 (OCOB, 2019).

### Road network

The county has a total of 7,958.64 km of classified road network. The paved County road network covers 432.61 km, while the paved National roads cover 631.72 km. Out of the total paved road network of 1064.33 km, 90.1 per cent is in good condition, 2.7 per cent in fair condition and 7.2 per cent in poor condition. The unpaved road network in the county covers 4097.68 km (county roads) and 239.43 km (National roads), of this, 99.81 per cent is in good condition, 0.15 per cent fair and 0.04 per cent in poor condition as depicted in figure 1 (KRB, 2019).

**Figure 6.5: Road condition mix-classified road network**



Source: KRB, 2019

The unclassified road network in the County covers 2557.2 km, with 1739.49 km of narrow roads, that is, road with a reserve of between 4 -9 metres, while there is a total of 817.71 km of new roads.

## **Constraints faced**

The Rural Access Index (RAI) measures the proportion of the rural population who live within 2 km of an all-season road<sup>5</sup>. The county has a RAI of 97 per cent which is above the National Average of 70 per cent, indicating that access to transport in rural areas is above average (KRB,2019). This has positive implications with regard to sectors that rely on accessibility such as agriculture, trade and overall development. The road condition mix of the unpaved network at 0.04 per cent is a constraint to development.

## **Linkages to other sectors**

Transport has linkage to inter county trade facilitation and provides accessibility in support of the agricultural sector.

### **6.1.2 Opportunities with COVID-19 in various sectors**

With reference to the 8 point stimulus programme by the National Government<sup>6</sup> and resources allocated to road development and maintenance, the County has the opportunity to strategically improve the road network for economic development, while creating jobs for youth , women and vulnerable groups as espoused in the Roads 2000 programme<sup>7</sup> on labour based road development approaches.

The Roads 10,000 programme being implemented nationally by the Roads sub-sector actors, and specifically, the Low Volume Sealed Roads (LVSR) approach<sup>8</sup> offers a strategic and cost-effective approach to improve rural accessibility in the County.

### **6.1.3 Emerging Issues**

Kiambu supplies services and labor to Nairobi and the cessation of movement in an out of Nairobi means that Kiambu has been seriously affected this. There are ongoing discussions on removal of trade barriers across the CEKEB to ease movement of goods across the counties.

### **6.1.4 Recommendations**

- (i) Sensitize PSV and boda boda operators on COVID-19 prevention measures and assist vehicle owners in retrofitting vehicle designs for social distance, hygiene and ventilation.
- (ii) Re-develop bus parks and termini to address crowding and social distancing concerns stipulated in the public health guidelines.

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5 RAI defined: <https://datacatalog.worldbank.org/dataset/rural-access-index-rai>

6 GoK eight point stimulus programme <https://www.president.go.ke/2020/05/23/the-seventh-presidential-address-on-the-coronavirus-pandemic-the-8-point-economic-stimulus-programme-saturday-23rd-may-2020/>

7 Roads 2000 programme <http://krb.go.ke/our-downloads/roads%202000%20strategic%20plan.pdf>

8 LVSR /Roads 10,000 programme <https://www.kerra.go.ke/index.php/lvsr>

- (iii) Identify county significant infrastructure projects, with project speed emphasis, for implementation to support economic recovery from the effects of the pandemic.
- (iv) Focus on increasing the share of unpaved roads in good and fair condition to above 62 per cent which is the national average. For the unpaved road network, focus on adopting the Low Volume Sealed Roads (LVSR) technology for greater network coverage cost effectively.
- (v) Apply labor based and local resource-based approaches for road development and maintenance, where technically and economically feasible, in line with the Roads 2000 national policy<sup>9</sup>.
- (vi) Improve and expand infrastructure for Non-Motorized Transport (NMT) in urban areas and along roads with heavy - highspeed traffic to promote sustainable mobility options and enhance road safety for all road users. This is in line with the Integrated National Transport Policy 2009 and the Sustainable Development Goals<sup>10</sup>.
- (vii) Adopt climate smart road engineering designs to safeguard road and bridge infrastructure from floods and to harvest storm water for irrigation and productive use. Use the Kenya Urban Support Programme funding to build storm water management systems in urban areas.
- (viii) Apply performance Based Contracting for maintenance, with maintenance of the existing road network in good condition being a priority.

## 6.2 Information and Communication Technology

The county has good Internet connectivity and all the county government members are working from home and are well facilitated. The county is using between 2 and 4 billion shillings to get connected to all cooperatives for monitoring and support purposes. The county has put in place adequate budget to get ICT network infrastructure up and running.

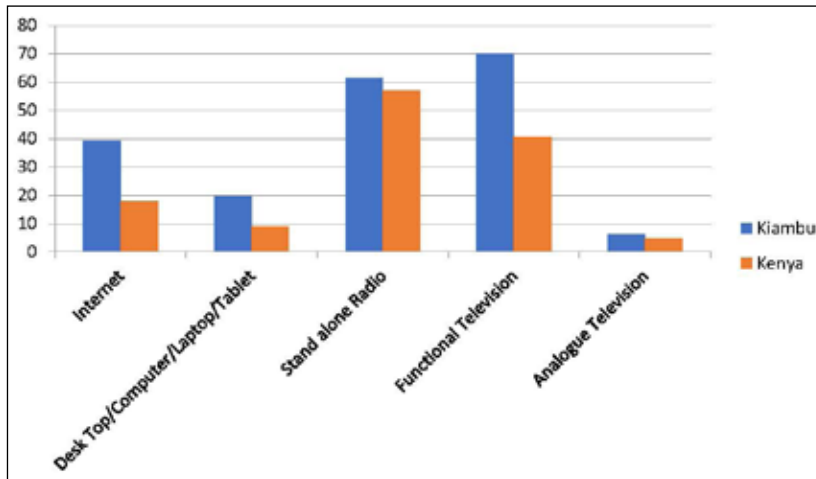
### 6.2.1 Characteristics of the sector

The analysis of the 2019 KPHC reveals that only 39.1 per cent of the conventional households in the county 'own' internet with 19.6 per cent owning a desktop, computer laptop or tablet. Internet access, ICT device ownership and TV ownership is particularly critical not only for access of COVID-19 information, but as well as supporting remote learning by the pupils as well as remote working (Figure 6.6).

<sup>9</sup> Roads 2000 programme <http://krb.go.ke/our-downloads/roads%202000%20strategic%20plan.pdf>

<sup>10</sup> Sustainable Mobility for All: <https://sum4all.org/implementing-sdgs>

**Figure 6.6: Percentage distribution of conventional households by ownership of ICT assets KPHC 2019**



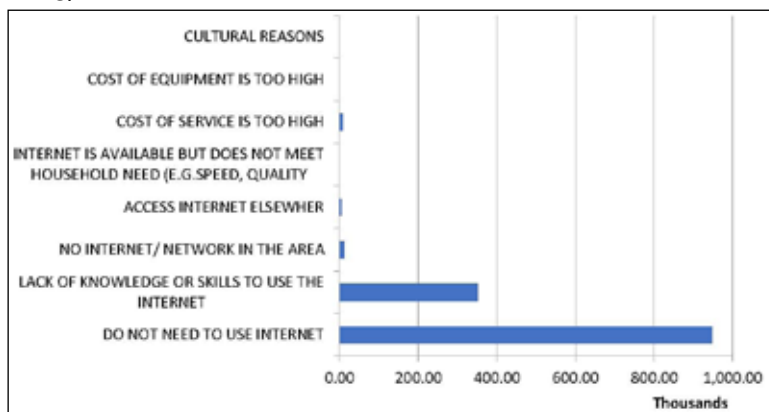
Source: KNBS, 2019-Kenya Population and Housing census

Online shopping is not prevalent in the County. 9.2 per cent of the conventional households searched and bought goods/services online. There exists gender disparity in online shopping with more men (10.1%) than women (8.3 per cent) undertaking online shopping.

The perception of that the individual does not need to use the Internet, lack of knowledge and skills on internet are the leading reasons that the people of in the County don't have internet connection (KIHBS). Other key factors include the lack of internet/network in the area, and the high cost of service and equipment (Figure 6.7).

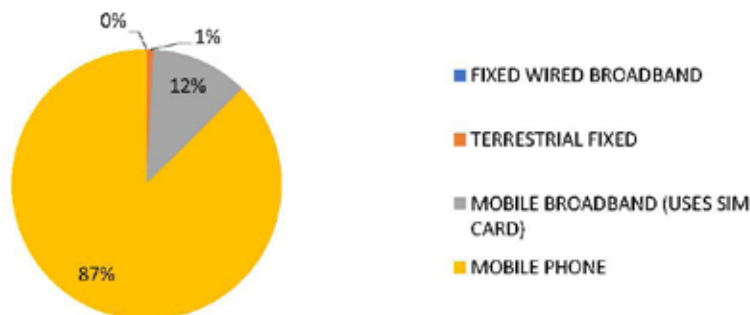
Approximately 87 per cent of the internet users in the county rely on mobile phone for connectivity, with a marginal population of 12 per cent relying on mobile broad band that uses a SIM card for connectivity (Figure 6.8).

**Figure 6.7: Why doesn't this household have any type of internet connection? KIHBS 2015/16**



Source: KNBS, 2016- KIHBS 2015/16

**Figure 6.8: Type of Internet connection**

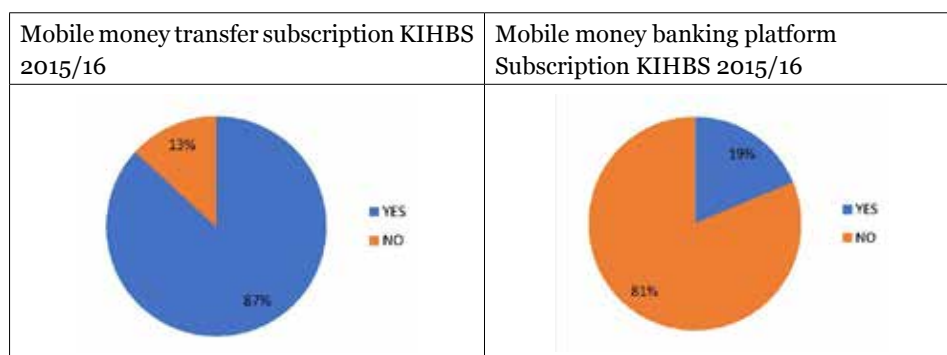


Source: KNBS, 2016- KIHBS 2015/16

Approximately 66.0 per cent of the population aged 3 years and above own a mobile phone which is lower than the national average of 47.3 per cent.

Approximately 87 per cent of the people in the county have a mobile money subscription compared with only 19 per cent that have a mobile money banking platform subscription (KIHBS 2015/16)

**Figure 6.9: Mobile Money Transfers Subscription and Mobile Money Banking Platform**



Source: KNBS, 2016- KIHBS 2015/16

The county experience gender divide in use of internet and ICT devices as well as mobile money subscriptions. Both internet and ICT device use is higher among the male with 44.5 per cent of the men and 40.9 per cent of the women using internet, while 23.9 per cent of the men and 19.8 per cent of the women using Desktop/Laptop/Tablet devices (KPHC, 2019). While the usage is below the national averages, the county recorded a similar gender disparity with the national averages in internet and ICT usage.

**Constraints**

- Low household ownership and use of ICT assets
- Low penetration of e-commerce



- Households perceive that they do not need to use the internet,
- Households lack knowledge and skills on Internet

### ***Linkages to other sectors***

- ICT is applicable in public service delivery for business continuity during time of lockdowns, emergencies and disasters.
- Public primary schools have been provided with ICT infrastructure and services for digital literacy.

### ***6.2.2 Opportunities***

- Potential to use ICT infrastructure and services in public primary schools for community access to ICT.
- Emerging technology such as satellite and airborne transmitters for internet connectivity.
- Potential to create and transform home based economies dependent on e-commerce for women and youth.

### ***6.2.3 Emerging issues***

The county has good internet connectivity and all the county government members are working from home and are well facilitated. The county is using between 2 and 4 billion shillings to get connected to all cooperatives for monitoring and support purposes. The county has put in place adequate budget to get ICT network infrastructure up and running.

### ***6.2.4 Recommendations***

- (i) Support programmes in partnership with the private sector that will enable households acquire ICT assets such as smart phones and laptops and increase mobile phone ownership from the low of 66.6 per cent to 100 per cent in line with the global agenda for Universal Access to Mobile Telephony<sup>11</sup>.
- (ii) Speed up the construction of fiber-optic broadband networks in rural areas and collaborate with telecom companies to upgrade and improve the communication networks in remote areas.
- (iii) Harness the power of technology and use innovative solutions to bridge the gender digital divide. Negotiate with the public primary schools for community access to ICT infrastructure and collaboratively build and equip youth empowerment, ICT centers and ICT laboratories as provided in the CIDP.
- (iv) Collaborate with IT personnel in Universities to support the development of ICT competence and skills among the public and bolster a digital economy.

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<sup>11</sup> Universal access to mobile telephony: <http://www.itu.int/itu-news/manager/display.asp?lang=en&year=2007&issue=07&ipage=universal-telephony>

- (v) Enhance internet connectivity to public buildings and key trade centres to boost e-commerce especially for MSMEs in trade and business. The NOFBI programme can be expanded to the sub-county administrative units to further enable deployment of e-governance solutions.
- (vi) Make ICT a standalone sector for planning and budget allocation. This is aimed at giving strategic prominence to planning, budgeting and investment in ICT.
- (vii) Develop and implement ICT policies and procedures to manage ICT and mitigate cyber threats. Collaborate with the national Computer Incident Response Team (CIRT) and the Communications Authority (CA) towards managing cyber threats, disasters and pandemics. This is because enhanced use of ICT is known to raise threats and risks related to cyber-crime and misinformation.

## 7. Housing and Urban Development

Urbanization in the county is self-driving due to the county's proximity to the city hence the county is trying to mitigate all the settlements popping up in different areas by ensuring that they follow the county development plans. Kiambu County has 6 municipalities and the county administration is trying to apply for more for purposes of urbanization. There are sixteen urban centers in the County with a total population of 48.7 per cent males and 51.3 per cent females, table 7.1. The urban land area covers 763 square kilometers with a population density of 2237 persons per sq.km.

**Table 7.1: Distribution of population by urban centres by gender**

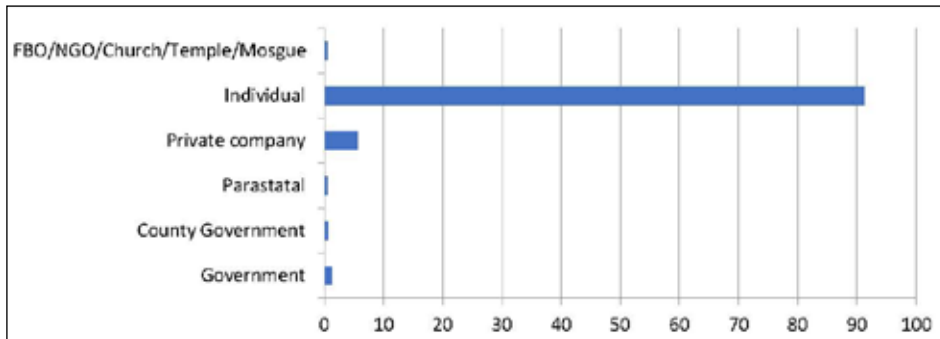
| Urban Center | Population | Male    | Female  |
|--------------|------------|---------|---------|
| RUIRU        | 490,120    | 239,013 | 251,075 |
| KIKUYU       | 323,881    | 157,008 | 166,855 |
| KARURI       | 194,342    | 94,707  | 99,623  |
| JUJA         | 156,041    | 77,304  | 78,728  |
| KIAMBU       | 147,870    | 70,758  | 77,095  |
| LIMURU       | 81,316     | 40,340  | 40,976  |
| KAWAIDA      | 14,038     | 6,830   | 7,208   |
| GITHUNGURI   | 10,615     | 5,057   | 5,558   |
| GATUNDU      | 7,947      | 3,687   | 4,260   |
| TING'ANG'A   | 6,059      | 2,814   | 3,245   |
| GITHIGA      | 5,565      | 2,755   | 2,810   |
| RIRONI       | 5,544      | 2,631   | 2,913   |
| KIMENDE      | 4,356      | 2,067   | 2,289   |
| IKINU        | 2,532      | 1,189   | 1,343   |
| NGEWA        | 2,452      | 1,186   | 1,266   |
| KIJABE       | 2,026      | 878     | 1,146   |

Source: KNBS, 2019 -Kenya Population and Housing Census

### 7.1.1 Characteristics of the sector

The housing tenure is predominantly owner occupied at 37.1 per cent, with 62.9 per cent of the households under rental tenure. Individuals are the primary providers of rental housing at 91.3 per cent, followed by Private Companies (5.6 per cent); and National Government (1.3%) (Figure 7.1). For those who own homes, 89.2 per cent constructed the houses while 2.7 per cent purchased the house and 8.1 per cent inherited their homes (KNBS, 2019).

**Figure 7.1: Distribution of households renting/ provided with the main dwelling unit by provider**



Source: KNBS, 2019 -Kenya Population and Housing Census

Majority of households are headed by men (70.7%) compared to women (29.3%) in the County (KIHBS, 2015/16).

### 7.1.1 Housing quality

On average, the main dwellings of houses in the County have 2.52 habitable rooms against an average household size of 4.23 persons in a household, translating to approximately 1.68 people per room. According to the UN-Habitat, overcrowding occurs when there are more than three people per room<sup>12</sup>. In terms of housing quality (building material), 91.33 per cent of houses are constructed using finished materials for walls, floor and roofing compared to 8.67 per cent constructed using rudimentary materials (KIHBS, 2015/16). Majority of households (76.5%) have iron sheets for roofing, Stone with lime/Cement walls (40.3%) and Concrete/Cement/Torrazo floors (63.9%) (KNBS, 2019).

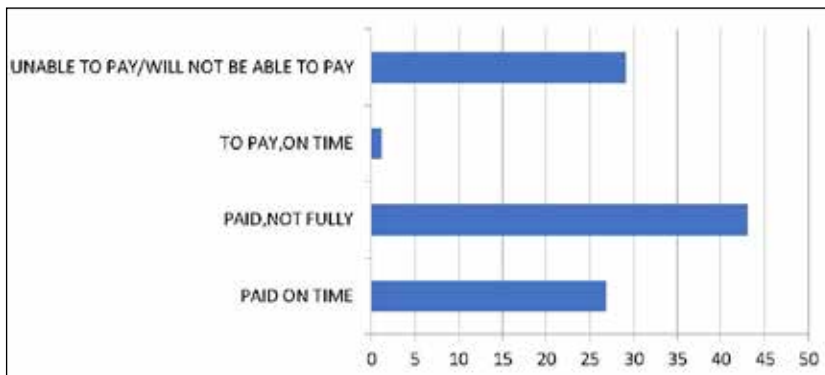
### 7.1.2 Rent payment

On average, rental households spend approximately Ksh 5774 on rent with a minimum of Ksh 0 and the maximum of Ksh 75,000 (KNBS, 2020b). The county recorded a rent to income ratio of 18.7 per cent which is within the acceptable threshold of 30 per cent (KNBS, 2012/13).

With the advent of COVID-19 pandemic, households' ability to pay rent has been affected, with 29.07 per cent of the population indicating inability to pay rent on the agreed date for April 2020, figure 7.2, compared to 26.81 per cent of the population that were able to pay rent on the agreed date and 45.63 per cent who paid rent on agreed date before COVID-19 pandemic (Figure 7.3).

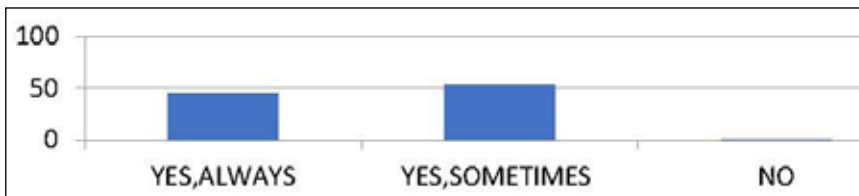
<sup>12</sup> Household crowding measure: [https://www.ncbi.nlm.nih.gov/books/NBK535289/table/ch3.tab2/#:~:text=Overcrowding%20occurs%20if%20there%20are,per%20habitable%20room%20\(88\).&text=Crowding%20occurs%20if%20there%20is,%2Drooms\)%20\(89\).](https://www.ncbi.nlm.nih.gov/books/NBK535289/table/ch3.tab2/#:~:text=Overcrowding%20occurs%20if%20there%20are,per%20habitable%20room%20(88).&text=Crowding%20occurs%20if%20there%20is,%2Drooms)%20(89).)

**Figure 7.2: Has your household paid the rent for April 2020 on the agreed date**



Source: KNBS COVID-19 Impact Survey 2020 wave 2

**Figure 7.3: Was the household paying rent on the agreed date with the landlord before COVID-19?**



Source: KNBS COVID-19 Impact Survey 2020 wave 2

The main reason that has made households unable to pay rent was attributed to reduced incomes /earnings, reported by 60.45 per cent of the population. The inability to pay rent was attributed to the COVID-19 pandemic by 93.57 per cent of the population, figure 7.4.

**Figure 7.4: What is the MAIN reason that has made your household unable to pay rent?**

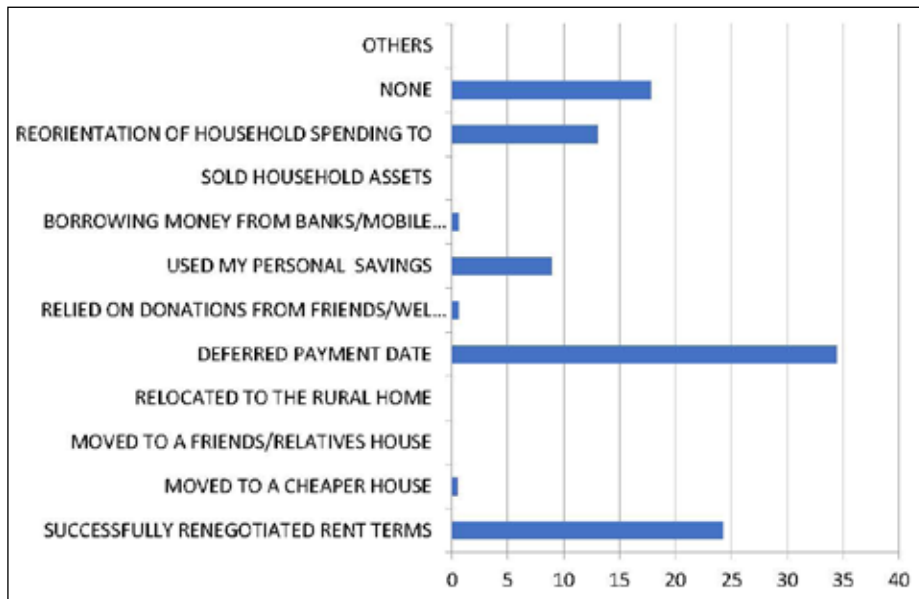


Source: KNBS COVID-19 Impact Survey 2020 wave 2

Majority of the households (87.2%) did not receive a waiver or relief on payment of rent from the landlord, with 7.78 per cent reporting a partial waiver and 0 per cent reporting a

full waiver. To overcome the effects of Corona virus on payment on rent, majority 24.26 per cent of households renegotiated rent terms, while 17.81 per cent of households did not take any measures. Approximately 8.89 per cent used personal savings to pay rent.

**Figure 7.5: What measures has your household taken to overcome the effects of Corona Virus – rent**



Source: KNBS COVID-19 Impact Survey 2020 wave 2

With regard to primary energy source for cooking, 40.5 per cent of households rely on unclean sources of energy for cooking such as firewood, paraffin and charcoal, which could adversely affect respiratory health of women and children.

### **Constraints faced**

- Household inability to pay rent due to livelihood shocks
- Existence of informal settlements

### **7.1.3 Opportunities**

- Partnership with National Government and Private Sector for home improvement (roof, floor and walls) under the Big Four Agenda.
- Existing projects under the Kenya Urban Support Program<sup>13</sup> and Nairobi Metropolitan Services Improvement Projects (NaMSIP)<sup>14</sup>

<sup>13</sup> KUSP <https://projects.worldbank.org/en/projects-operations/project-detail/P156777?lang=en>

<sup>14</sup> NaMSIP <https://www.namsip.go.ke/>

#### **7.1.4 Emerging Issues**

Existing stock of owner-occupied homes that can be improved using finished building materials for roofing, walls, and floors. Urbanization in the county is self-driving due to the county's proximity to the city hence the county is trying to mitigate all the settlements popping up in different areas by ensuring that they follow the county development plans. Kiambu County has 6 municipalities and the county administration is trying to apply for more for purposes of urbanization.

#### **7.1.5 Recommendations**

- (i) Develop and implement an addressing system with complete, correct and unique address data in line with the National Addressing System to be used in pandemic and disaster surveillance and emergency response.
- (ii) Fast-track implementation of the affordable housing programme in partnership with the private sector targeting urban centers.
- (iii) Develop a policy to promote home ownership to address the problem of rent distress during times of emergency.
- (iv) Create a fund to cushion landlords and tenants from rent distress during periods of emergency.
- (v) Avail appropriate building technology for use by the public in house construction and improvement in every sub-county, that responds to local cultural and environmental.
- (vi) Identify and designate urban centers for upgrade pursuant to provisions of the Urban Areas and Cities (amendment) Act, 2019.
- (vii) Develop and implement urban planning and design instruments that support sustainable management and use of natural resources and land in line with the New Urban Agenda and as mitigative measure to future pandemics and disasters.
- (viii) Formulate and seek approval of urban development plans and development control policies to support investment and development of urban areas.
- (ix) Adopt programmes aimed at an increasing household access to clean energy sources and technologies for cooking to mitigate against exposure to respiratory diseases.

## 8. Tourism

### 8.1 Characteristics of the Sector

The county has several tourist attractions sites which include Kereita forest and Great Rift Valley Viewpoint; PCEA Church of Torch; Ondiri Swamp; Watson Memorial; Chania Falls, Fourteen falls, Mugumo Gardens and Aramati Thigira Cultural Centre; Old Italian Church; Italian Prisoners of War; Paradise Lost recreation centre; Maumau Caves; Gatamaiyu Fish Camp; various Historical sites in Gatundu and Githunguri Sub Counties. The main activities in these sites are site seeing, sports / boat riding, viewing of the Great Rift Valley, zip lining, hiking trails, social activities among others. The county does not have national parks or game reserves.

The county has more than 682 unclassified hotels and 694 bars and restaurants which are well distributed within the county. Occupancy in these hotels benefit from close proximity to Nairobi where tourist facilities of all classes exist in abundance. The county also hosts 3 golf clubs which are highly utilized due to the county's proximity to capital city of Nairobi. Accommodation and food services accounts for 0.2 per cent of total GCP, implying the need to prioritize hospitality sub-sector as a source of county own source revenue.

The total acreage of Kiambu county gazetted forest is 40,032.8 Ha (in Kieni, Kinale, Kireita, Ragia, Upland, Kamae, Thogoto, Muguga) which provides excellent opportunity for eco-tourism and nature trails. Few wildlife species are found in Kinale forest whose ecosystem constitutes of a dense forest, while conservation areas are concentrated in Lari Sub County. The County's tea, coffee, pineapple plantations provide great opportunity for development of agro-tourism.

The County's attractions sites attract a large number of tourists annually. The leading sites are Kereita forest, Chania and Fourteen Falls, Mau Mau Caves with the greatest number of visitors being domestic tourists.

### 8.2 Opportunities with COVID-19 in Tourism Sector

- Improving sanitation aspects in tourism attraction sites.
- Refurbishment of accommodation facilities
- Promoting domestic tourism

### 8.3 Emerging Issues

Sanitation as a key component in ensuring business continuity in the tourism sub-sector;



## **8.4 Recommendations**

To re-engineer and recover tourism sector the following measures will be undertaken:

- (i) Tourism product diversification and marketing to include eco-tourism, agro-tourism, sports-tourism, medical-tourism and cultural tourism
- (ii) Protection of cultural and heritage assets; establishment of a cultural documentation centre.
- (iii) Investment in tourism infrastructure improvement: rehabilitation of existing sites / development of new ones in the County
- (iv) Enforcement of sanitation guidelines for reopening of the hospitality sub-sector to support containment of the COVID-19 pandemic.
- (v) Development of tourism infrastructure (routes to the attraction sites such as Fourteen falls and Kereita forest, star-rated hotels, tourist sites, tented camps).
- (vi) Enforcing guidelines on high sanitation standards for the hospitality sector to stop the spread of COVID-19 and other pandemics while ensuring business continuity.
- (vii) Inspect all the tourism establishments in the county and train tourism service providers.

## 9. Health

### 9.1 Characteristics of the Sector

#### *General health provision in the County*

There is a total of 364 health facilities spread across the county. Under the public facilities, the county has 1 level-five hospital namely Thika District Hospital, 3 level-4 in Gatundu South, Kiambaa and Kikuyu Constituencies, 4 level-three in Gatundu North, Juja, Kiambaa and Limuru Constituencies. There are 20 level-two (Health Centres) and 54 level-ones also known as dispensaries which are well distributed within the county. The rest of the facilities are private with 17 Mission Hospitals, five nursing homes, 36 dispensaries and 169 private clinics. The average distance to the health facility is seven Km and the facilities are well accessed since the road network is good.

**Table 9.1: Health provision**

| Year                                   | 2018  | 2019/20 |
|--|-------|---------|
| <b>Health facility density</b>         |       |         |
| Primary health facilities              | 294   |         |
| Hospitals                              | 352   |         |
| <i>Number of health facilities</i>     | 646   | 766     |
| Health facility density                | 5.9   | 10.4    |
| <b>Bed density</b>                     |       |         |
| Hospital beds                          | 3,764 | 3,815   |
| No. of Beds per 10,000 population      | 57    | 57      |
| <b>Human resource density</b>          |       |         |
| Total workforce                        | 4,022 | 5,164   |
| Human Resources for Health (Technical) | 3,222 | 4,390   |
| Number per 10,000 population           | 15.2  | 17.7    |

*Source: Ministry of Health (2021)*

In 2019/2020, the number of health facilities in the county were 766. This was an improvement from a total of 646 health facilities in the previous year, 2018. The number of beds per 10,000 population is 57 which is higher than the WHO recommendation of 30 beds per 10,000 population. The health facilities and personnel serve a growing population of 2,417,735 people according 2019 census. In 2019/20, total health workforce was approximately 5,164 representing 17.7 health workers per 10,000 population which is higher than the WHO target of 23 health workers per 10,000.

**Table 9.2: Percentage distribution of the population that reported sickness/ injury by type of health provider in the county (%)**

| Type of Health Provider                         | Percentage Distribution of the Population |
|---|---|
| Government hospital                             | 22.3                                      |
| Government health centre                        | 23.6                                      |
| Government dispensary                           | 21.4                                      |
| Faith Based (church, Mission) Hospital / Clinic | 5.5                                       |
| Community Health                                | 0.0                                       |
| Private hospital / clinic                       | 28.2                                      |
| Nursing/ Maternity Home                         | 0.0                                       |
| Pharmacy/ chemist                               | 0.0                                       |
| Community health worker                         | 0.0                                       |
| Shop/ Kiosk                                     | 0.0                                       |
| Traditional healer                              | 0.0                                       |
| Faith healer                                    | 0.0                                       |
| Herbalist                                       | 0.5                                       |
| Other   | 0.0                                       |
| Number of Individuals ('000)                    | 322                                       |

Source: KIHBS 2015/2016

Table 9.2 presents the distribution of population reported to have been sick or injured and the type of health provider they visited. Majority of the County residents who reported illness visited Private hospital / clinic and Government health centre at 28.2 per cent and 23.6 per cent followed by those who visited government hospitals and government dispensaries at 22.3 per cent and 21.4 per cent, respectively. About 5.5 per cent visited Faith Based (church, Mission) Hospital / Clinic.

### **Population with health insurance cover**

The percentage distribution of the population with health insurance cover by type of insurance provider is presented in Table 9.3. In general, 25.6 per cent of the county population had some form of health insurance cover. The National Hospital Insurance Fund (NHIF) was the leading health insurance provider reported by 97.1 per cent of the population. Employer contributory insurance cover was reported by 10.8 per cent of the

population. Private contributions to insurance cover were reported by 2.0 per cent of the population.

**Table 9.3: Percentage distribution of the county's population with health insurance cover by type of health insurance provider (%)**

| Source of Health Insurance                    | Percentage Distribution of the Population (%) |
|---|---|
| Population ('000)                             | 1,868   |
| Share of population with health insurance (%) | 25.6  |
| NHIF  | 97.1  |
| Private-Contributory                          | 2.0   |
| Private-Non-Contributory                      | 0.0   |
| Employer-Contributory                         | 10.8  |
| Employer-Non-Contributory                     | 0.0   |
| Other   | 0.0   |
| Number of Individuals ('000)                  | 479   |

Source: KIHBS 2015/16

### Place of delivery

In the 2015/16 KIHBS, women in Kiambu county were asked the place where children aged 5 years and below were delivered. Table 9.4 shows the percentage distribution of children by place of delivery, in the county. About 13.5 per cent of children were delivered at home which is below the national percentage of 31.3 per cent. The proportion of children born in hospitals, health centres, Maternity Home was 77.3 per cent, 4.7 per cent, and 4.2 per cent, respectively.

**Table 9.4: Proportion of children aged 0-59 months by place of delivery (%)**

| Place of Delivery                   | Proportion of Children aged 0-59 Months by place of delivery (%) |
|-------------------------------------|--|
| Hospital                            | 77.3   |
| Health Centre                       | 4.7  |
| Clinic/ Dispensary                  | 0.0  |
| Maternity Home                      | 4.2  |
| At Home                             | 13.5   |
| Other                               | 0.4  |
| Not stated                          | 0.0  |
| <b>Number of Individuals ('000)</b> | 197  |

Source: KIHBS 2015/16

### **Immunization for children**

The 2015/16 KIHBS covered data on measles immunization for children below 5 years at; 9 months (Measles I) and at 18 months (Measles II). The information was collected from vaccination cards where they were available while mother’s recall was used where the card was not available. Table 9.5 presents information on the proportion of children immunized (from vaccination cards) against measles. The analysis focused on children aged 12-23 months (or one year). The county had 34.4 per cent of the children aged 12-23 months were fully immunized against measles at 9 months while 25.1 per cent were fully immunized against measles at 18 months.

**Table 9.5: Proportion of children aged 0-59 months immunized against measles**

|                                     |                                      | <b>Proportion of Children</b> |
|-------------------------------------|--------------------------------------|-------------------------------|
| Vaccination Card                    | Yes Seen                             | 46.1                          |
|                                     | Yes, Not Seen                        | 49.5                          |
|                                     | No                                   | 3.8                           |
|                                     | Not stated                           | 0.6                           |
| Measles Vaccination                 | Measles I (At 9 months Card)         | 34.4                          |
|                                     | Measles II (At 18 months Card)       | 25.1                          |
|                                     | Measles II (Mother/ Guardian memory) | 44.0                          |
|                                     | Either (card or memory)              | 78.4                          |
| <b>Number of Individuals ('000)</b> |                                      | 197                           |

Source: KIHBS 2015/16

### **Health outputs**

The county has improved its health status in some of key health indicators while some are still below the national averages. The most prevalent diseases in the county are Flu which accounts for 35.3 per cent of the total hospital visits, Malaria accounts for 18.6 per cent of the total hospital visits, Respiratory Tract Infections (RTI) at 9.7 per cent, and Ear Nose and Throat Infections account for 3.1 per cent of hospital visits.

Generally, the county does not have serious health problems, and this is indicated by low infant mortality rate, which stand at 48/1,000 and under 5 mortality rates, which stands at 58/1,000. Due to high rate of delivery at health institutions which stands at 92.6 per cent, children’s health is fair and data available for stunted growth is negligible.

The proportion of children under 5 years who are stunting stood at 5.1 per cent better than the national average of 21 per cent. The proportion of children who are underweight stands at 4 per cent while wasting rate is at 2.3 per cent (KDHS, 2014).

The county immunization coverage stands at 97.2 per cent with the remaining population not being covered due to various reasons such as religious beliefs. All public institutions provide immunization services hence the high rate of immunization coverage.

Acceptance of family planning methods currently stands at 85 per cent in the county. This partially explains the lower population growth rate in the county as most of the women in the reproductive age group understand the importance of and practice family planning. However, more efforts need to be put in place to ensure that the remaining women of reproductive age accept and start using various methods of family planning.

**Table 9.6: Health sector performance**

| Key Health Indicators              | County Estimates |
|------------------------------------|------------------|
| <b>Maternal and Child Services</b> |                  |
| <i>Skilled delivery (%)</i>        | 92.6             |
| <i>Children born at home</i>       | 5.4              |
| <i>Fully immunized child</i>       | 97.2             |
| <b>Child Mortality</b>             |                  |
| <i>Infant mortality (*1000)</i>    | 48               |
| <i>Under-5 mortality (*1000)</i>   | 58               |
| <i>Neo-natal mortality (*1000)</i> | 31               |
| <b>Nutrition Status</b>            |                  |
| <i>Stunted children (%)</i>        | 5.1              |
| <i>Wasted children (%)</i>         | 2.3              |
| <i>Underweight children (%)</i>    | 4                |
| <b>HIV (%)</b>                     |                  |
| <i>HIV adult prevalence (%)</i>    | 4                |
| <i>Children with HIV(No.)</i>      | 0                |
| <i>ART adult coverage (%)</i>      | 85               |
| <i>ART children coverage (%)</i>   | 82               |

Source: KDHS, 2014; DHIS 2018

Concerning the fight against COVID-19, the county received a second consignment of donations of Personal Protective Equipment (PPEs) from Safaricom Foundation for Thika Level Five Hospital. The beds, donated by Kevian Kenya Limited, producer of Afia and Pick 'N' Peel juice brands, are fitted inside isolation wards and quarantine cents in the county. Fifty beds are installed at the Kenya Medical Training College in Thika through a joint partnership with Thika Level Five Hospital, while the remaining batch was set up at Tigoni Hospital, which is a public health facility. Kenya Medical Training College has the capacity to handle 150 isolation cases.

The county has a unit at the Tigoni Level 4 Hospital for coronavirus patients. The facility has a capacity of 60 beds but we shall gradually revise this upward to 150 beds

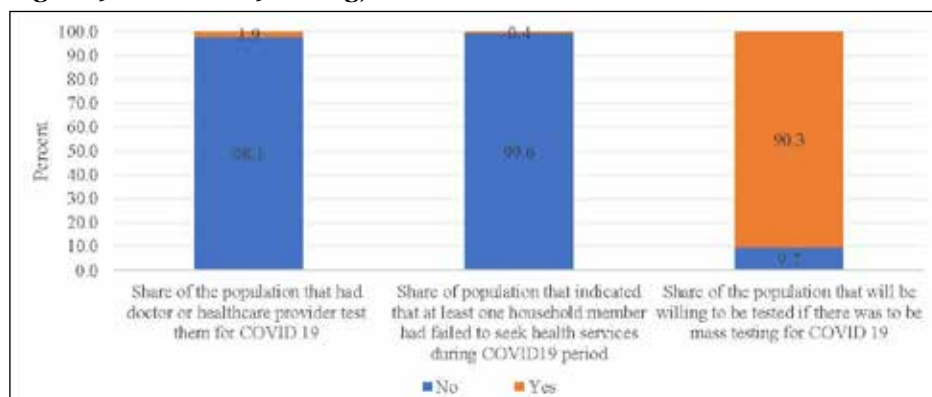
Additionally, the county sought to raise Ksh 2 billion to fix the healthcare gap, both in the COVID-19 period and after the pandemic. Some of the companies that made the donations were fruit juice processor Del Monte who donated Ksh 4 million in Kind, Family Bank which donated intensive care unit beds worth Ksh 3 million and Diamond Trust Bank (DTB) which gave a donation of Ksh 1.5 million.

### Effects of COVID-19

Recent survey showed that some fear people going to hospitals to avoid contracting COVID-19. This has increased the chance of other infections and other major health problems. The health department in the county has initiated a massive sensitization in urging people to go to hospitals for medical checkups and other health services. Given the likely increase in depression cases that is attributed to loss in streams of income and inability to service loans, the county government has come up with plans to have counselling services offered to those affected in communities. Department of health have commanding centers where calls from all parts of the county are attended to. The county has toll free call center which the health center uses to do surveillance and attend to immediate concerns as well as undertaking contact tracing.

In June 2020, Kenya National Bureaus of Statistics conducted a survey of COVID-19. The results showed that the share of the population that had doctor or healthcare provider testing or confirming to them the status in regards COVID-19 was estimated at 3.7 per cent in 2020 (COVID-19, Wave 2 survey). This small number shows that there is a large population of people in the county who have not yet been tested for COVID-19. Further, no member of the population indicated that at least one household member had failed to seek health services and 74.4 per cent of the population indicated they will be willing to be tested if there was mass testing for COVID-19. Therefore, a lot of awareness need to be created among the county population.

**Figure 9.1: COVID-19 testing, 2020**



Source: COVID-19 Wave 2 (June 2020)

Teenage pregnancies, Sexual and Gender Based Violence (SGBV) are some of the health issues affecting the youths in Kiambu County. The closure of schools due to COVID-19

affected children socially, this has seen one in ten girls being victims of teenage pregnancies this is alarming given the fact that only 2 per cent of teenage mothers always return to school.

Other health problems affecting youths are; Malaria, abortion, abortion drug and substance abuse (DSA), malaria, mental health, malnutrition sexually transmitted infections such as HIV and AIDS. Some of contributing factors include idleness, lack of health education, negative cultures as highlighted above, parental negligence and lack of guidance, peer pressure, illiteracy and high poverty levels. The results of these problems are mental illness, suicide, school dropout, low economic and social productivity, low self-esteem, stigma, and premature deaths. Therefore, action need to be taken to prevent such from occurring. This can be achieved through parental guidance, economic empowerment, sex education, employment creation among the youths, early school enrolment and guidance and counselling.

The county is undertaking awareness to dissuade the fears among the public most of whom had stopped going to the hospital thus cutting the revenue stream. The local productions of masks have provided opportunity for revenue creation. County target to increase revenue by fully digitizing revenue collection and management, expanding revenue collection base and increasing services offered. The county will have to adjust her target since was also set in the absence of COVID-19 which has greatly impacted the economy and affected several revenue generation activities in the health sector.

Main raw materials in the health sector are the services offered by health professionals and other employees. Medicine and drugs are also key materials. The supply of these materials were affected amid the growing demand.

The county experienced shortage of funds in the health sector to implement some of the measures recommended by WHO. The county had not envisaged a health pandemic of this magnitude hence overreliance on the national government for support. In addition, local revenue collection is bound to happen since many economic activities had been disrupted by the country lock down and curfew. Many commodities which were being sold outside the county had been affected as well. The county is also likely to face protracted labor disputes especially with medical officers who might demand more risk allowances during this pandemic period.

The sector has linkages with the Education, ICT, WASH and Agriculture sectors. There is a direct proportionality between education and health. The high the education level of members of the county, the healthier they are. High level of education reduces instances of disease outbreaks due to ignorance. This particularly reduces health diseases such as sexually transmitted among the youths and adults.

Advancement in ICT also helped improve health sector service delivery. This is because with ICT, it was easy to scan for diseases and manage the treatment. With advancement in ICT, it was possible to do diagnosis to patients and treat them promptly. A good example is the scan for pregnant mothers and cancer patients while helping in mortality rate reduction. Good water and sewerage facilities also contributed greatly in reduction of diseases such as cholera, typhoid and other waterborne. This is because by maintaining good hygiene such as washing hands after visiting toilets, washing fruits before eating and boiling/treating drinking water.



Good disposal of waste by avoiding open defecation and using toilets also helped reduce spread of diseases spread through human waste. Agriculture sector also plays a key role in ensuring that people get balanced diet and good nutrition. This reduces cases of malnutrition and stunted growth among children due to lack of certain nutrients and vitamins. Agriculture also serves as a source of revenue and employment mostly for the females. This reduces cases of family conflicts and stresses, hence reducing mental diseases.

## **9.2 Opportunities with COVID-19 in Health Sector**

There is an enhanced collaboration within THE CEREB block counties which has resulted into training of the health officers and all the frontline staffs. This collaboration has also seen enhanced intercountry screening and testing.

Additionally, due to reduced social contacts, many meetings have been taking place virtually. This has provided an opportunity for the development of ICT. This has saved the county money which could have used in the movement from place to another, conference hall fee as well as accommodation for her staff. This has also promoted of ICT and other communication channels within the county hence speedy transfer of information.

The pandemic had also led to utilization of local capacity in production of masks and PPEs. This has promoted growth of local industries hence creating employment. It has also challenged the county government hence exposing the health sector since it lacked enough ICU beds. More attention is now being given to the sector leading to improved health services. The county has also received a number of donations in terms of bed and PPEs which have contribute to general improvement of the health sector in general.

## **9.3 Emerging Issues**

The COVID-19 pandemic has increased the demand for isolation centres, admission beds, ICU and HDU beds. It had also overstretched the existing health facilities. Additionally, with spread of pandemic across counties it has created fear among the residents and some of them have opted not to visit the hospital in fear of contracting the virus.

The outbreak of the virus had caused the county to reprioritize its health sector priorities and some preventative and promotive health services such: malaria control; expanded programmes on immunization; integrated management of childhood illness; and control and prevention of environmentally communicable diseases have been affected to some extent.

## **9.4 Recommendations**

In line with the health status in the county, some of the recommendations that need attention include the following:

- (i) The county to recruit and train adequate number of human resources for health to enable the health facilities provide equitable essential services throughout and after

the emergency; curb direct mortalities due to COVID-19. Kiambu level 5 hospital should be given first priority.

- (ii) The county to also provide additional funding to health sector to help in expanding, modernizing and equipping of health facilities, upgrade Level IV Hospitals to a Level V to offer enhanced health services alongside Thika District level V Hospital and Kiambu hospital.
- (iii) The county to create awareness on availability and importance of free maternity services and address other constraints to access of maternal health services in the county to address fear of contracting COVID-19 in event of visiting a health facility.
- (iv) The county to allocate resources towards nutrition specific and sensitive programmes in the various sectors by establishing specific budget lines for nutrition support initiatives. Focus should be given to children and women since they are the ones mostly affected by child malnutrition.
- (v) Promote and support public and community health including the installation of hand washing facilities in homes and institutions such as schools, workplaces and health care facilities within Kiambu county.
- (vi) Strengthen preventative and promotive health services through malaria control; expanded programmes on immunization; integrated management of childhood illness; and control and prevention of environmentally communicable diseases.
- (vii) Address the mental health needs including those of the health workforce, mental illnesses from depression, especially in response to shut-downs and economic downturns associated with COVID-19.

## 10. Education and Training

### 10.1 Characteristics of the Sector

#### *General Education Provision in the County*

Kiambu County has over 513 pre-primary centres, 1225 primary and 303 secondary schools. Infrastructures are in place to support water and sanitation efforts in learning institutions by the county. The county has rolled out plans to provide hand washing facilities in schools.

There were 1,225 primary schools in Kiambu County out of which 576 are public and 349 are private. The total number of primary school teachers was 21,090 and the teacher to pupil ratio was 1:38. The total enrolment rate was 295,409 pupils comprising of 115,375 males and 113,910 females. The gross enrolment rate was 109.2 per cent, while the net enrolment rate was 91.3 per cent. This could be attributed to the introduction of Free Primary Education programme. Infrastructure in schools has also improved through devolved funds such as Constituency Development Fund (CDF) and Local Authority Transfer Fund (LATF). However, the county still needs to invest in the provision of additional education facilities because of the increasing number of school going population.

There were 303 secondary schools consisting of 227 public and 76 private schools. The total enrolment rate was 89,065 out of which 44,777 are males and 44,288 are females. The gross enrolment rate was 75.3 per cent and the net enrolment rate was 60.5 per cent. The number of teachers in the county stood at 3,479 and the teacher/pupil ratio was 1:25. The completion rate was 92.5 per cent and therefore there is need for great investment in the education sector to ensure the rate reaches 100 per cent.

The County has one public University, Jomo Kenyatta University of Agriculture and Technology located in Juja Constituency and two satellite campuses namely University of Nairobi, Kikuyu campus in Kikuyu sub county and Kenyatta University, Ruiru campus in Ruiru Sub County. There are 6 private universities which include Greta University, Mount Kenya University, St. Paul's University, Kiriri Women's Science and Technology University and Presbyterian University of East Africa, Zitech University in Ruiru and a number of tertiary colleges. The county also has 2 Teacher Training Colleges namely Kilimambogo Teachers in Thika sub-county and Thogoto Teachers in Kikuyu sub county. These institutions have gone a long way in ensuring secondary school graduates get access to higher education therefore ensuring the availability of necessary skills required in the job market.

About 97.9 per cent of public primary schools in Kiambu County have been installed with ICT infrastructure and devices under the Digital Literacy Programme (DLP) (ICT Authority, 2019). The infrastructures include learner digital devices (LDD), teacher digital devices (TDD) and the Digital Content Server and Wireless Router (DCSWR).

### **Gross Attendance Ratio (GAR) and Net Attendance Ratio (NAR)**

Gross Attendance Ratio (GAR) is the total number of persons attending school regardless of their age, expressed as a percentage of the official school age population for a specific level of education. Table 9.1 presents the GAR by sex and schooling level for the County. GAR for pre-primary school was 92.9 per cent while that of primary school and secondary school was 109.2 and 75.3 per cent respectively. The GAR for pre-primary school was higher for males, 106.2 per cent, compared to that for females, 74.8 per cent. The GAR for primary school was higher for females, 113.5 per cent, compared to that for males, 105.4 per cent. The GAR for secondary school was higher for males, 76.2 per cent, compared to that for females, 74.5 per cent.

Net Attendance Ratio (NAR) is the total number of persons in the official school age group attending a specific level to the total population in that age group. Table 10.1 shows that total NAR for pre-primary, primary and secondary school was 72.5, 91.3 and 60.5 per cent, respectively.

**Table 10.1: Gross attendance ratio and net attendance ratio by educational level in Kiambu County**

| <b>Education Level</b> | <b>Gender</b> | <b>Gross Attendance Ratio</b> | <b>Net Attendance Ratio</b> |
|------------------------|---------------|-------------------------------|-----------------------------|
| Pre-Primary School     | Male          | 106.2                         | 79.2                        |
|                        | Female        | 74.8                          | 63.5                        |
|                        | Total         | 92.9                          | 72.5                        |
| Primary School         | Male          | 105.4                         | 88.6                        |
|                        | Female        | 113.5                         | 94.4                        |
|                        | Total         | 109.2                         | 91.3                        |
| Secondary School       | Male          | 76.2                          | 62.5                        |
|                        | Female        | 74.5                          | 58.7                        |
|                        | Total         | 75.3                          | 60.5                        |

Source: KIHBS 2015/16

### **Basic education gross and net enrolment rate**

The pre-primary gross enrolment rate in the county was 90.5 per cent in 2019 and while the net enrolment rate was 68.4 per cent. Total enrolment for ECD in the county was 73,730. Public ECD centres had an enrolment of 29,655 comprising of 15,563 males and 14,092 females. Private ECD centres had a total enrolment of 44,075 children comprising of 22,134 males and 21,941 females. There is therefore need for more investments in public ECD centres to ensure children from poor background get access to early education without much strain.

**Table 10.2: Gross and net enrollment rate (%), 2019**

|                                 |       |
|---------------------------------|-------|
| <b>Preprimary</b>               | 2019  |
| Gross Enrollment rate (GER) (%) | 90.5  |
| Net Enrollment rate (NER) (%)   | 68.4  |
| Gender parity index             | 0.99  |
| <b>Primary</b>                  |       |
| Gross Enrollment rate (GER)(%)  | 101.9 |
| Net Enrollment rate (NER) (%)   | 88.9  |
| Gender parity index             | 0.99  |
| <b>Secondary</b>                |       |
| Gross Enrollment rate (GER) (%) | 101.0 |
| Net Enrollment rate (NER) (%)   | 70.1  |
| Gender parity index             | 1.03  |

Source: KNBS (2022)

The county had a total population of 87,594 children falling within the age group of 3 to 5 (pre-school). This consists of 44,177 males and 43,417 females. The total number of ECD teachers was 1,843 and the teacher to pupil ratio was 1:40. However, most of the teachers are paid by parents and this is likely to compromise quality since not all are qualified to handle the young ones during the formative stages. The Gross Primary and Secondary enrolment rates stood at 101.9 per cent and 101.0 per cent respectively in 2019 while the Net enrolment rates (NER) were 88.9 per cent and 70.1 per cent for primary school and secondary school respectively during the same period.

## Literacy

The analysis of literacy is based on respondents' self-assessment as no reading and writing tests were administered during the data collection. Further it was assumed that anybody with secondary level of schooling and above could read and write. The percentage distribution of population aged 15 years and above by ability to read and write is presented in Table 10.3. The proportion of literate population in the county is 94 per cent with the male population more literate (95.8%) compared to their female counterparts (92.1%).

**Table 10.3: Percentage distribution of population aged 15 years and above by ability to read and write (%)**

|                | Ability to Read and Write           | Percentage Distribution (%) |
|----------------|-------------------------------------|-----------------------------|
| Overall county | Literate                            | 94                          |
|                | Illiterate                          | 5.6                         |
|                | Not Stated                          | 0.4                         |
|                | <b>Number of Individuals ('000)</b> | 1,257                       |
| Male           | Literate                            | 95.8                        |
|                | Illiterate                          | 3.9                         |
|                | Not Stated                          | 0.2                         |
|                | <b>Number of Individuals ('000)</b> | 627                         |
| Female         | Literate                            | 92.1                        |
|                | Illiterate                          | 7.3                         |
|                | Not Stated                          | 0.5                         |
|                | <b>Number of Individuals ('000)</b> | 630                         |

Source: KIHBS 2015/16

### ***Educational Attainment***

The distribution of population aged 3 years and above by educational qualification attained is presented in Table 10.4. Approximately 36.1 per cent of the population do not have any educational qualification. This is below the national percentage of 49.7. Only 2.9 per cent of the population has attained university degree. The proportion of the population with CPE/KCPE qualification is 28.7 per cent and that of KCE/ KCSE qualification is 21.8 per cent.

### ***Highest education***

**Table 10.4: Percentage distribution of population by highest educational qualification**

| Highest Educational Qualification | Percentage Distribution of Population |
|-----------------------------------|---------------------------------------|
| None                              | 36.1                                  |
| CPE/ KCPE                         | 28.7                                  |
| KAPE                              | 0.2                                   |
| KJSE                              | 0                                     |
| KCE/ KCSE                         | 21.8                                  |
| KACE/ EAACE                       | 0.3                                   |
| Certificate                       | 4.1                                   |
| Diploma                           | 4.2                                   |
| Degree                            | 2.9                                   |
| Basic/post literacy certificate   | 0                                     |
| Other                             | 0                                     |
| Not Stated                        | 1.6                                   |
| Number of individuals ('000)      | 1,684                                 |

Source: KIHBS 2015/16

Percentage distribution of Kiambu County residents 3 years and above who have ever attended school by the highest level reached, and sex is presented in Table 10.5. The proportion of males who had reached primary school level was 44.1 per cent while that of females was 46.2 per cent. Except for primary school level and college (middle level), the proportion of males who had reached other levels of education were comparatively higher than females. For instance, for all persons who reported to have attended school, 9.3 per cent of males and 6.2 per cent females had reached pre-primary school level in the County. There was a high disparity between the proportion of persons who had reached university education level, male recording a higher percentage than female (6.3 per cent and 5.4 per cent respectively).

**Table 10.5: Percentage distribution of residents 3 years and above who had ever attended school by highest level reached, and sex for Kiambu County (%)**

| <b>Educational Level</b>     | <b>Gender</b> | <b>Percentage Distribution of Population 3 Years and above</b> |
|------------------------------|---------------|--|
| Pre-primary                  | Male          | 9.3  |
|                              | Female        | 6.2  |
| Primary                      | Male          | 44.1   |
|                              | Female        | 46.2   |
| Post primary vocational      | Male          | 0.3  |
|                              | Female        | 0.6  |
| Secondary                    | Male          | 30.3   |
|                              | Female        | 30.7   |
| College (Middle-level)       | Male          | 7.2  |
|                              | Female        | 9.8  |
| University                   | Male          | 6.3  |
|                              | Female        | 5.4  |
| Madrassa / Duksi             | Male          | 0  |
|                              | Female        | 0  |
| Other                        | Male          | 0.1  |
|                              | Female        | 0  |
| Not Stated                   | Male          | 2.3  |
|                              | Female        | 1.1  |
| Number of Individuals ('000) | Male          | 870  |
|                              | Female        | 814  |

Source: KIHBS 2015/16

The percentage of people within the county who can read stands at 95.6 per cent while 3.8 percent of the total population cannot read. Also, 95.2 per cent of the total population can write while 4.2 per cent cannot write. About 95.4 per cent of the total population within the county can read and write while 4.6 per cent cannot read and write. Those who can read and write stand at 95.4 per cent. The high literacy rates are as a result of continued

investment in the education sector and there is need for more investment to ensure the literacy levels gets to 100 per cent.

The county government has been supporting youths in advancing education from the ECD level to the tertiary. This has been possible through various programmes and issuing of bursaries. In 2016 the county hired 1,081 nursery school teachers on permanent and pensionable terms in a bid to upgrade the education sector. The county is set to distribute about bursary funds worth Ksh 1.52 million to each of the 60 wards. By November 2019 the county had distributed over Ksh 24 million in vocational colleges. This shows that the county is determined in ensuring that the youths have access to education. However, the youths are still facing many challenges and COVID-19 has worsened the situation due to closing of schools. Many students are idle engaging in social evils such as crime and prostitution. Poverty is a key hindrance to the education sector and mostly youths. Many cannot afford to pay school fee. In addition, drug and substance abuse has greatly contributed to absenteeism hence affecting the education standards. Peer pressure is another factor leading to early marriages and school drop outs. All these factors lead to poor transition from primary to secondary school. To address the challenges, government needs to enforce free and compulsory secondary education.

According to Basic Education Statistical Booklet (2019), 374 males and 1487 females were employed as ECD teachers in the public schools. This makes a total of 1861 ECD teachers in public sector compared to a total of 2923 in private sector in which males were 586 and 2923 females. In total, county had 5370 ECD teachers in both public and private schools. At this level of education more females are engaged compared to males. The number teachers employed in primary schools were 5,864 in public sector and 3,633 in private sector. This makes a total of 8269 teachers at primary level of education. At secondary level, the county had 5,170 secondary school teachers in public schools and 870 more in private schools making it a total of 6040. From the above statistics it is evident that the number of teachers to student's ratio is large meaning that the teaching labor force is stretched.

Private schools in Kiambu County were severely affected as a result of the COVID-19 pandemic because they could no longer receive income in form of school fees. Suppliers and vendors who sold their goods and services to schools also lost their target market after the government ordered all schools to shut down.

The main raw materials in education are the services offered by the teachers and other employees such as cooks, drivers, cleaners and security persons. Learners also consume goods such as food, clothing, reading and writing materials and other learning equipment. Another raw material is the county budget allocation on education. There is need to increase the county's budget allocation on education in order to facilitate provision of school infrastructure.

The key product and services in education sector is water which is a shared commodity between community and the schools. The county government should ensure that all learning institutions have water for proper hygiene during this COVID-19 period. School uniforms and learning materials such as books are provided by parents. Schools should make sure that there is sufficient number of classrooms to accommodate all learners when schools re-open. There is need to cover days lost through make up programs both at home and in schools. There is also Need for employment of more teachers in case of double tracks.

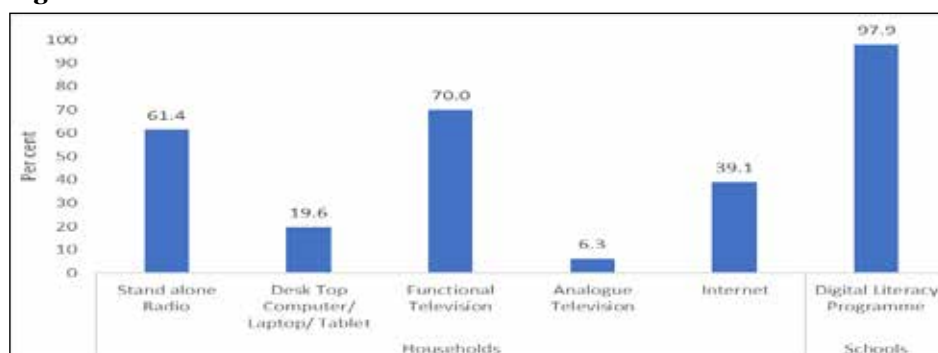


There were several constraints in the education sector. The main one was COVID-19 which has led to closing of schools. This has disrupted education calendar posing a great challenge to both county and national government. The national government announced that the education calendar 2020 a waste. Closure of all schools had led to loss to learning time and teaching time. The school infrastructure in the County is not only limited but also is of poor quality. High Illiteracy level is another issue of concern as not all county persons can read and write. Lack of parental guidance and early marriages are other challenges being experienced.

### ICT in education

There is lack of enough ICT infrastructures in the county making it difficult for the online learning to take place. The county has also low internet access (39.1%) which constrain online learning across the County. Furthermore, only 19.6 per cent of the households had access to ICT equipment such as laptops and computers. This makes it difficult for the pupils and other students to benefit from national learning programme which had been started by the government. Even if the programme was to be done through radio, it would be difficult since only 61.4 per cent of the county population has a radio. It is important to note that in terms of ICT, Kiambu is among the top counties with much improved infrastructure.

**Figure 10.1: Access to ICT in households and schools**



Source: Kenya Population and Housing Census (KPHS, 2019).

Agriculture provides food for the school going children. Therefore, it plays a key role in ensuring that the school going children get food of the required quality and quantity. It is always children who are in the right health status who are able to concentrate and learn in classes. Therefore, good health ensures continuity of learning among the pupils and students. It is in schools where children are taught about good health hygiene which contributes in reduced diseases spread. ICT therefore plays a key role especially now that schools have been closed down and people are advocating for online classes. Good internet connectivity, possession of laptop/desktop computer, iPad, TV, and radio would greatly facilitate the online learning.

## **10.2 Opportunities with COVID-19 in education and training**

The demand for PPEs such as masks in the County had led to local production by VTCs hence creating employment and income for youth. It will however be important to address issues of standards and quality of the local produced PPEs. COVID-19 pandemic had also provided opportunity for the county government to forge partnerships to ensure enough network coverage across all the sub-counties and counties in the Lake region. There is also the opportunity of exploring online classes. This if effective, can save time spent on travelling from home to schools to teach. Teachers will be able to reach at the comfort of their seats. This can reduce the cases of lateness and absenteeism. Learning from homes will also reduce accidents and injuries among pupils at school. It will also reduce indiscipline and drug abuse as parents will be able to closely monitor their children at home. The disease has also created an opportunity for creativity among students who are involved in making of ventilators and researching on vaccines.

## **10.3 Emerging Issues**

There was limited access to desktops, laptops and internet connectivity by many school going children. The county government with support from stakeholders aims to continue investing in early childhood development and vocational learning through; learning infrastructural development; employment of ECDE teachers and vocational instructors; provision of sanitation facilities; subsidizing vocational learning; provision of instructional/training materials to vocational centers and ECDE centers; increase bursary allocation; and enhanced school feeding programme for ECDE and primary school level. To achieve these objectives, the county will require to partner with the national government, development partners and the private sector to enhance ECDE and vocational training through infrastructural development as well as equipping both ECDE and vocational training centres.

## **10.4 Recommendations**

- (i) The County with support from stakeholders to continue to invest in early childhood development through infrastructural development to allow for adequate social distancing when schools reopen; deployment of ECDE teachers and provision of sanitation facilities.
- (ii) The county to involve communities to mobilize learners when schools will be reopening process and while deepening implementation of COVID-19 mitigation measures. The county will combine community participation and large-scale direct communication campaigns to parents, and where possible, increase attendance options to accommodate all children, including those with highest risk of dropping out, also promote back to school campaign and community outreach to ensure that no child is being dropped out of school due to COVID-19 emergency.
- (iii) The County to prioritize projects that improve school water, sanitation and hygiene facilities and management in order to reduce future effect of similar or related outbreak while promoting public health in learning institutions.

- (iv) The county to promote remedial/catch up lessons for learners who might have lagged behind also schools to utilize ICT platforms and have a depository of teaching and learning materials that learners could use at their own time and while at home.
- (v) The county to provide financial or in-kind support, such as school feeding, to help families overcome the increased costs of attending school, also provide psychosocial support to teachers and learners.
- (vi) Concerted efforts will also be required to fight drug and substance abuse among the youths in the county. This can be done through counseling and ensuring that they are not idle especially this period when learning institutions are locked.
- (vii) Government need to come in and support private institutions which are facing threat of closure due to losses as a result of closing school indefinitely. This can involve giving grants and loans to the private schools.

## 11. Social Protection

### 11.1 Characteristics of the Sector

#### *Sources of vulnerabilities in the County*

The County has many vulnerable members in the society such as the elderly, youths, PWDs and those living with HIV AIDS. According to the KNBS census 2019, Kiambu county has a population of 2,417,735 of which 3.6 per cent are the elderly and 2.1 per cent are people living with disabilities. The overall poverty rates in the county stand at 19 per cent which is lower than the national average (36.1 per cent). Despite being an agricultural county, the county's food poverty levels are at 23 per cent and 23 per cent of the total population is multidimensionally poor. Further, about 16 per cent of the children population is stunted. The impact of the COVID-19 to the county's economy cannot be gainsaid.

There had several programmes promoting the social welfare of this special group of people. One of such programme is the Kiambu County Jijenge Fund. This is one of the flagship programmes aimed at promoting and developing new and existing micro and small market enterprises among youth, women, people living with disabilities (PWD) and vulnerable men and women. Jijenge Fund was an improvement of the previous fund as it does not incur any interest, had a wider range of enterprises that it funded and targeted to reach more people. It had been established through the Kiambu County Jijenge Fund Act of June 2018 after the repeal of the previous Kiambu County Youth, Women and Persons with Disabilities Enterprise Fund (Kiambu Biashara Fund). The Jijenge Fund is only eligible to Kiambu County residents. It is domiciled in the department of Youth Affairs, Sports, Communications and ICT.

#### *Severe Shocks to The Households*

Severe shocks have had negative impact to the household's economic and social welfare of county residents. Table 11.1 presents the proportion of households by the first severe shock in the county. The major shock in the county was robbery which affected 23 per cent of the households followed by Large rise in price of food and Death of family Member which affected 14.6 per cent and 12 per cent of the households in the county. Livestock dearth, Loss of salaried employment or non-payment of salary and Large fall in sale prices for crops were also other major shocks in the county affecting 6.5 per cent, 7.9 per cent and 2.5 per cent of households, respectively. Crop disease or crop pests were experienced by 0.8 per cent of households while the as other 11 per cent of the households reported to have experienced Break-up of the households.

**Table 11.1: The proportion of households by the first severe shock in the county**

| <b>First Severe Shock</b>   | <b>The proportion of households ( per cent)</b> |
|---|---|
| Droughts or Floods  | 0   |
| Crop disease or crop pests  | 0.8   |
| Livestock died  | 6.5   |
| Livestock were stolen   | 0   |
| Household business failure, nonagricultural                               | 1.6   |
| Loss of salaried employment or non-payment of salary                      | 7.9   |
| End of regular assistance, aid, or remittances from outside the household | 0   |
| Large fall in sale prices for crops                                       | 2.5   |
| Large rise in price of food   | 14.6  |
| Large rise in agricultural input prices                                   | 1   |
| Severe water shortage   | -   |
| Birth in the household  | -   |
| Death of household head   | 7   |
| Death of working member of household                                      | 0   |
| Death of other family Member  | 12  |
| Break-up of the household   | 11  |
| Bread winner jailed   | -   |
| Fire  | 2   |
| Robbery / Burglary / Assault  | 23  |
| Carjacking  | -   |
| Dwelling damaged, destroyed   | -   |
| Eviction  | -   |
| Ethnic/ Clan Clashes  | -   |
| Conflict  | -   |
| HIV/ AIDS   | -   |
| Other   | 2   |
| <b>Number of households with Shock</b>                                    | <b>101,000</b>                                  |

Source: KIHBS 2015/2016

### ***Distribution of Social Assistance Beneficiaries***

Households in the county received various forms of social assistance or transfers or gift either in form of a good, service, financial asset or other asset by an individual, household or institution. Transfers constitute income that the household receives without working

for it and augments household income by improving its welfare. Cash transfers include assistance in form of currency or transferable deposits such as cheque and money orders. The proportion of households that received cash transfers by source, household headship, residence and county is presented in Table 11.2. Overall, 17 per cent of the households received cash transfers. A higher proportion of households received transfers from within the country (75%), mainly from individuals (83 per cent) while external transfers constituted 7 per cent.

**Table 11.2: The proportion of households that received cash transfers by source, and household headship**

|   |   | Beneficiaries  |
|---|---|----------------|
|   | Total Number of Households                | 600,000        |
|   | <i>Households receiving transfers (%)</i> | <i>17</i>      |
| From Inside Kenya                                   | Individual                                | 74,748         |
|   | Non-Profit Institution                    | 1,290          |
|   | National Government                       | 4,752          |
|   | County Government                         | 1,974          |
|   | Corporate Sector                          | 963            |
| Inside Kenya  |   | 83,727         |
| Outside Kenya                                       |   | 1,716          |
| Total   |   | 85,038         |
| <b>Number of households that received transfers</b> |   | <b>102,000</b> |

Source: KIHBS 2015/2016

Other vulnerable people have been receiving food donations from various well-wishers during this COVID-19 period. At least 520 needy families from 12 sub-counties received maize and wheat flour, beans, rice, cooking oil, rice and soap from. They received food donations worth Ksh 392,000 from police officers in the county. A group of elderly and vulnerable women from the shanties of Thika's Majengo estate received food donations donors. The over 100 women, have been going hungry for days benefited from wheat and maize flour, beans, soaps, sugar among other items from former Thika town MP, Alice Ng'ang'a. Deputy President William Ruto also had distributed food to 600 families in Nachu ward, Kikuyu constituency.

National Hygiene program (Kazi Mtaani) in Kiambu County recruited 23,075 workers in phase 2. This is a social protection program for the poor and vulnerable to cushion them from the effects of COVID-19 pandemic so that people don't starve. County has 68 informal settlements spread out in the 12 sub-counties where the 23,075 recruits shall work. Phase one of the NHP was carried out in Kabete, Kikuyu, Kiambaa and Thika sub-counties in which 2300 youths were paid a total of Ksh 30 million. In Phase 2, some 23,075 are expected to work in the program which will be carried out in the 12 sub-counties of Kiambu and will be supervised by 769 supervisors. A total of 282,617 workers participated in the ongoing second phase of the program which involves bush clearing, drainage unclogging and unblocking, clearing access paths, garbage collection and fumigation.

Open air markets were closed which mostly serve as place of trade. Most people in these markets were females. This has therefore affected their welfare in terms of finances and access to food and other goods. This had an impact of lowering their living standards. Livestock markets had also been closed making it hard for people to sell their livestock which serves as a main source of income. Other small-scale traders such as those in transport industries like *matatu* and *bodaboda* have been affected since the number of passengers they carry per trip has been reduced. Thus, due to introduction of social distance requirements. This had therefore reduced their income with some operating at losses. Shops and Kiosks, social centers such as club and bars, hotels have been affected by the curfew and social distance requirements thus reducing the amount of income that they get. Unemployment rate in the county had increased due to close of many businesses and learning institutions. This had led to the decline in living standards and family conflicts due to limited sources of income.

Most of the social protection operations were undertaken through noncontributory transfers in cash for the elderly, OVCs and PWDS. In some instances, in kind transfers which include school feeding programmes were also used to reach a wider audience and age group.

Potential sources for revenue were adversely affected by the floods and COVID-19. However, through lifting of up restrictions and the measures taken by the county on local business is picking up which would eventually revive the revenue stream though it might take time but there are positive signs to that effect. County support to the Small and Medium Enterprises and different business industries within the county will help revive the revenue base. Financial support from the national government was crucial in facing the pandemic.

The main source of revenue to implement social protection activities in the county were mostly government budgetary allocations and donor contribution to OVCs, PWDs, and the elderly. The county government has been complementing the work of the national government on taking care of the OVCs. The county government aims at protecting children from abuse, neglect and discrimination in accordance with the Children's Act, 2001, and the Education Act, 2012.

Loss of jobs and business opportunities led to an increase in poverty and declining of people welfare. With loss of jobs and businesses, most youths were involved in the activities such as crimes, prostitution and other social evils. Job losses also affected county residents. In addition, decreased county revenue made it hard for the county to cater for the needy cases and mostly those affected by COVID-19. In addition, unemployment posed a great danger to the youths in the county.

Social protection is directly linked to the health sector. When people's social welfare is good, that is people have good health insurance, they can be able to access health services in case of sickness. When people welfare is affected by loss of employment and closing of businesses, they were more likely to suffer from diseases such as stress and depression. ICT also plays a key role in terms of information dissemination through media such as radio, television, mobile phones, etc. Communication is key especially for the people in business as one need to place order for goods or services. ICT is also involved in record keeping of those people in schemes such as NHIF and NSSF as well as other insurances.

Additionally, social protection is directly related to education. The more one is educated

the more he is informed of existing welfare schemes. Educated people also are aware of the need for and importance of engaging in social protection programmes such as insurance and investment for future to benefit after retirements. With good education, one is able to understand government role in ensuring good life for its citizens.

### **11.1 Opportunities with COVID-19 in Social Protection**

The disease exposed lack of preparedness among counties in terms of responding to the emergencies such as COVID-19 pandemic. Health being a devolved function, COVID-19 led to enhanced investment in health facilities such as ICU beds and enough medical personnel. The virus had also provided an opportunity to develop social protection programs to cushion the vulnerable groups in the community in case of outbreak of other diseases.

### **11.2 Emerging Issues**

Lack of comprehensive social protection at the county level exposing the county residents to sufferings such as lack of food and treatment. Due to social distancing and curfew hours, GBV victims had limited contact with family and friends who would act as the first contact persons during violence. Survivors also experienced challenges accessing healthcare services, counseling Services and access shelters. These challenges underscore the need for deliberate measures at the county level to prevent and support GBV survivors in times of emergencies as experienced with the pandemic.

### **11.3 Recommendations**

COVID-19 pandemic created effects with immediate and long-term economic consequences for children, PWDs, elderly and their families. In an effort to strengthen social protection response in face of a similar pandemic, the county government will need to:

- (i) Partner within the CEREB block to ensure borders are manned and enhance cross border screening especially among long distance drivers. This will drastically slow the spread of the virus.
- (ii) Conduct mass civic education among the people on COVID-19 prevention measures, how to handle an infected person and avoidance of stigmatization of the affected person.
- (iii) Enroll more county residents in welfare programmes such as NHIF, which will ensure that they access medical treatment in case of falling sick.
- (iv) County government also need to give tax exemption for the SMES who have suffered losses in their business as result of diseases outbreak.
- (v) County government need to create a kit where they can collaborate with local banks in offering loans to the SMEs to restart and boost their businesses.
- (vi) Provided food and other basic wants to the elderly, PWDs and OVCs since their movement have been reduced as they are at great risk of contracting the virus. Therefore, their life has been affected and cannot afford to feed themselves anymore.
- (vii) Implement more programmes to incorporate youths in development are needed. This will ensure they do not get involved in drug and substance abuse.



## 12. Labour Participation

### 12.1 Characteristics of the Sector

#### *Sources of employment in the County*

Agriculture is the predominant economic activity in the county. It is the leading sub sector in terms of employment, food security, income earnings and overall contribution to the socio-economic well-being of the people. Majority of the people in the county depend on the sub sector for their livelihood. Coffee and tea are the main cash crops in the county. Other food crops grown in the county are maize, beans, pineapples and Irish potatoes. These are mainly grown in small scale in the upper highlands of Limuru, Kikuyu, Gatund North and South Constituencies. Due to dwindling availability of formal jobs in the county, most of the people have reverted to self-employment which contributes to 31 per cent of households' income in the county. In rural areas, 157,473 persons are self-employed whereby they engage in agricultural activities for their livelihoods. On the other hand, 384,935 of the persons in urban centres are self-employed, having set up businesses and small-scale industries.

The export and import restrictions created uncertainty on the flower industry and farmers were undertaking emergency response measures to prevent the spread of COVID-19 in the communities, this has resulted to loss of jobs and income amongst the farmers. For some instances, Magana Flowers company was closed forcing some county residents to be left jobless.

**Table 12.1: Distribution of population Age 5 years and above by activity status, and sex in the County**

|  | Male        | Female      | Total       |
|--|-------------|-------------|-------------|
| Population                               | 1,038,886   | 1,086,316   | 2,125,316   |
| Working                                  | 578,378     | 537,923     | 1,116,365   |
| Seeking Work/ No Work Available          | 89,806      | 76,022      | 165,846     |
| Persons outside the Labour Force         | 370,435     | 472,110     | 842,577     |
| Not Stated                               | 267         | 261         | 528         |
| <i>% Working</i>                         | <i>86.5</i> | <i>87.6</i> | <i>87.0</i> |
| <i>% Seeking Work/ No Work Available</i> | <i>13.4</i> | <i>12.4</i> | <i>12.9</i> |

Source: KNBS, 2019

Distribution of population age 5 years and above by activity status, and sex in the county is shown in Table 12.1 above. An assessment on the county labour force indicates the county

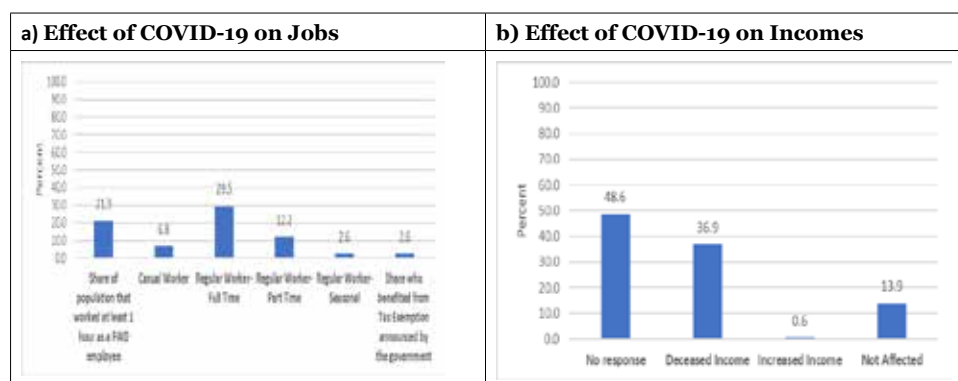
population aged 15–64 years (labour force) was estimated at 1,282,211 people of whom 1,116,365 people were working and 165,846 were seeking work but work was not available representing an unemployment rate of 12.9 per cent (Kenya Population and Housing Census, 2019). The youth is estimated to comprise 29.1 per cent of the total population in the county. However, there are youths who are trained yet are unable to be absorbed by the existing labor market while others lack necessary skills. Some factors such as inadequate capital to start businesses have also been one of the major causes of unemployment in the county. The Kenya Private Sector Alliance (KEPSA) through its social arm - KEPSA Foundation, has various opportunities which the County can leverage on to achieve its social and economic objectives. For example, the KIJANI movement can be adopted by the County to create green jobs for the unemployed.

### Effects of COVID-19

The unemployment has increased during the period of COVID-19, according to May 2020 KNBS COVID-19 Survey, 21.3 per cent of the county labour force worked at least for 1 hour for pay; 14.5 per cent had never worked, and 64.2 per cent worked in the informal sector. However, 6.0 per cent of employees did not attend to work due to COVID-19 with other 78.7 per cent of employees working without any pay. On average, workers in the County lost 12.4 hours per week due to COVID-19 and 37.0 per cent of county residents recorded decrease in income while 1.0 per cent recorded increase in income.

During the pandemic, about 6.8 per cent of workers in the county were casual workers 29.5 cent were regular workers (full time), 12.2 per cent employees were working as part time. However, majority of these workers (36.9%) reported decrease in income while 0.6 per cent of people reported to have experienced increased income. These could be the people working in the health sector who are supplying medical equipment such as masks and PPEs. About 2.6 per cent of workers indicated to have benefited from government tax exemptions which indicates about 97 per cent did not benefit from National government tax relief for low-income-earning persons, a reduction in the top Pay-As-You-Earn (PAYE) rate, and other changes such as cash transfers, credit relief, lower VAT, and a corporate tax cut.

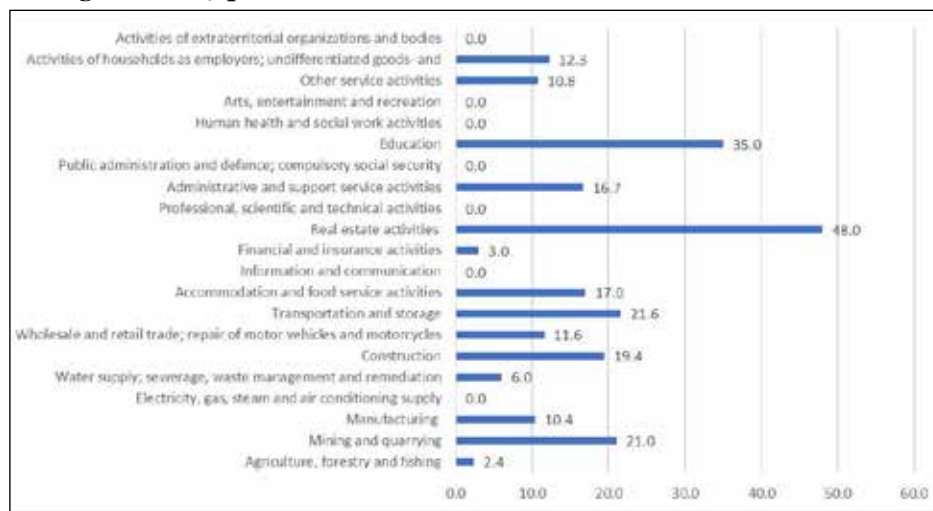
**Figure 12.1: Effects of COVID-19, 2020**



Source: KNBS (2020)

According to the May 2020 KNBS COVID-19 Survey, workers in the Real estate activities reported the highest level of loss of hours worked (48 hours), followed by workers in education sector who lost 35 hours (figure 11.2). The high number of hours lost in by the real estate indicate that workers in the sector were working overtime and during the weekends. Workers in transportation and storage and mining and quarrying lost a total of 21.6 hours and 21.0 hours, respectively. Workers in construction and accommodation and food service activities recorded on average loss of 19.4 hours and 17 hours per week, respectively. The loss of working hours in service sectors which contributes 50.0 per cent of county GCP implied the county economy was negatively affected.

**Figure 12.2: Difference between usual hours worked and actual hours worked during COVID-19 period**



Source: KNBS, 2020

According to the May 2020 KNBS COVID-19 Survey, 37.0 per cent of workers in Kiambu county recorded decreased income; 1 per cent reported increase in income; while 86.8 per cent recorded working as unpaid workers. The county recorded 64.2 per cent of the workers to be working in the informal sector and 6.0 per cent never attended work due to COVID-19 related issues. Some other businesses such as bars, hotels, market centres had been closed, leading to reduced business activities. Some workers in the transport sector had also been rendered jobless due to restrictions of moving both within and between counties, and in and out of Nairobi and Mombasa counties. On average, the workers in the county lost 12.4 hours worked in a week This indicating that the measures imposed by the Government to mitigate the spread of COVID-19 had substantial implications on labour sector.

## 12.2 Opportunities with COVID-19 in Human Resource Sector

The county government have been provided with the opportunity to use digital platforms to enable remote access to jobs for their employees where the Human Resource Management will have an essential role to play in navigation of the situation caused by the pandemic. There have been notable efforts by the county government to invest more money in training

health workers. The county government now has an opportunity to reskill its employees and develop strategies (mid- and post-pandemic strategies) to adapt to the emerging issues.

### **12.3 Emerging Issues**

The COVID-19 pandemic has expedited the speed at which different firms and businesses within the county are changing their pay programmes through pay reductions and incentive resets. The county governor and his deputy experienced a 30 per cent pay cut.

There has been reframing of the way the county government segment its workforces to include essential and frontline workers especially in health sector. As it continues, the county will consider long-term strategies to determine which changes will be temporary versus those that will be permanent.

With the widespread stay-at-home orders, most of county employers are adjusting operations and shifting workforces online, all of which have affected overall employee well-being.

### **12.4 Recommendations**

- (i) Promote implementation of labour market interventions and policy reforms that drive employment creation within the key sectors of agriculture and services. The County shall deepen technical education, training and skills development in partnership with TVETS in Kiambu county.
- (ii) Collaborate with lending institutions such as Banks and SACCOs to improve access to finance in form of loans for small and medium enterprises which were affected by the pandemic. Kiambu county government will provide security for loans extended to SMEs. In addition, build capacity in areas related to marketing, operations, finance, and human resource development to enhance the chances of survival of SMEs.
- (iii) Build workplace resilience to public health emergencies and outbreaks of infectious diseases in all economic sectors as well as enforcing re-organization of workspaces to ensure heightened safety, and the right balance between virtual and non-virtual interactions.

## **13. Conclusion and Key Recommendations**

### **13.1 Conclusion**

#### ***Fiscal policy, planning and budgeting***

The County's main revenue sources comprise of the transfers from the National Government, Conditional Grants and its own source revenue (OSR). Kiambu County, total revenue increased from Ksh 7.8 billion in 2013/14 to Ksh 15.48 billion in 2020/21. This was supported by the 100 per cent disbursement of equitable shares and conditional grants from the National government. Budget execution as measured by absorption rate has improved over the review period. Average overall absorption rate stands at 84.8 per cent. Average development budget absorption rate stands at 68.7 per cent while that of recurrent expenditure stands at 92.3 per cent. County wage bill has however been burgeoning accounting for an average of 51.1 per cent of county expenditure while development spending averaging 24.0 per cent. Pending bills have been increasing over the review period with development related pending bills accounting for 62.5 per cent.

#### ***Agriculture, Livestock and Fisheries***

The Agri-food analysis highlights the sector was negatively affected by COVID-19 in terms of labour supply, trade and marketing operations, food supply and the resulting effects on food prices. At the peak of the COVID-19 pandemic period, some parts of the County also suffered from floods and livestock diseases. The County's agricultural productivity is also affected by: - variable and extreme weather events; Dependence of rain fed agriculture; low agro-processing and value addition opportunities; land fragmentation; low access to quality and affordable inputs; low crops, livestock, and livestock products marketing opportunities; Poor access to agricultural finance ; low access to major off-farm services including extension, climate and market information, and credit services; and pests and livestock diseases; and farm losses and post-harvest waste. This adversely affects the productivity of the sector and impairs marketing and consequently places livelihoods and food security at risk especially in times of emergencies. The analysis calls for strategies to enhance productivity, profitability, and resilience of the sector for improved livelihoods.

#### ***Water sanitation and hygiene***

Most households rely piped water, surface water and water from dug wells, to minimize the risks of households missing water, it was important to put in place measures to ensure protection of water resources for continuity of access to clean and safe water by households.

### ***Manufacturing, Trade and MSMEs***

The momentum in manufacturing, trade and MSMEs was disrupted by the COVID-19 pandemic as the containment measures associated with COVID-19 pandemic took a heavy toll on the sector. In sustaining growth and building resilience in this sector, it is important to expand trade and strengthen production capacity of MSMEs and especially those involved in manufacturing in the County by exploiting opportunities afforded by the pandemic such as production of masks, PPEs, hospital beds, ventilators, reagents, gloves, and sanitizers. However, it is also critical to ensure the transitioning out of such products is well managed as the covid-19 pandemic slows.

### ***Tourism***

Kiambu County has several tourist attractions sites, which include Kereita forest and Great Rift Valley Viewpoint; PCEA Church of Torch; Ondiri Swamp; Watson Memorial; Chania Falls, Fourteen falls, Mugumo Gardens and Aramati Thigira Cultural Centre; Old Italian Church; Italian Prisoners of War; Paradise Lost recreation centre; Maumau Caves; Gatamaiyu Fish Camp; various Historical sites in Gatundu and Githunguri Sub Counties. The main activities in these sites are site seeing, sports / boat riding, viewing of the Great Rift Valley, zip lining, hiking trails, social activities among others. The county does not have national parks or game reserves. The County's attractions sites attract many tourists annually. The leading sites are Kereita forest, Chania and Fourteen Falls, Maumau Caves with the greatest number of visitors being domestic tourists. The tourism sector was greatly affected by the COVID-19 pandemic. The County government need to re-engineer and recover the tourism sector by undertaking different policy measures.

### ***Health***

For a resilient health sector, there is need for more awareness on immunization so that mothers can ensure their children get immunized. Implement a comprehensive human resource health management system including undertaking training needs assessments and information system to ensure skilled and motivated health care workers, equitable deployed across all sub-counties. This is in addition to paying the salaries in time to avoid cases of strikes and low staff morale. Recruit additional of public health officers and community health workers to strengthen preventive and public health systems.

### ***Education and training***

The County with support from stakeholders will need to continue to invest in early childhood development through infrastructural development to allow for adequate social distancing when schools reopen; deployment of ECDE teachers and provision of sanitation facilities. The county would put up measures that encourage learners to complete all levels of education.

### ***Social Protection***

COVID-19 pandemic created immediate and long-term economic consequences for vulnerable groups including children, PWDs, elderly and their families. To strengthen social protection response in face of a similar pandemic, the county government will need

to provide basic income security, especially for persons whose jobs or livelihoods have been disrupted by the pandemic. Build linkages with other Ministries, and with NGOs that work with people with disabilities to strengthen families, deliver assistive devices, reduce barriers to access and provide vocational training.

### ***Human resources***

The COVID-19 pandemic has expedited the speed at which different firms and businesses within the county are changing their pay programmes through pay reductions and incentive resets. It will be important for the County to promote implementation of a appropriate labour market interventions especially those working in the tea sector which is a major employer in Kiambu county and policy reforms that drive employment creation. Deepen technical education, training, and skills development.

## **13.2 Key Recommendations**

### ***Fiscal policy, planning and budgeting***

To steer the county towards achieving its budgetary objective and development goals contained in the ADPs and CIDP, mobilize more finances from OSR to increase the available revenues for budgetary operations, seek for more funding in form of grants from development partners to cater for the critical development projects in the county, ensure that the ongoing projects are completed before launching new project and clear any pending bills and arrears owed to suppliers and ensure the ongoing infrastructure project are completed and suppliers paid within the specified timelines for optimal returns to investment and to spur private sector activity.

### ***Agriculture, Livestock and Fisheries***

To successfully build resilience and enhance growth of the agriculture sector,; explore partnerships to develop agro-processing and value addition capacities at the County; invest in sustainable irrigation and water harvesting technologies; enhance access to storage and cooling facilities; enhanced commercialization opportunities among small holder farmers; link farmers to diverse product markets; strengthen the County's institutional capacity in disaster surveillance and management; enhance farmers access to critical agricultural inputs and services and build their technical capacity to act on information obtained; and strengthen agricultural cooperatives.

### ***Water sanitation and hygiene***

To build resilience and mitigate the effect of COVID-19; increase water supply in households, institutions, and public places through drilling of boreholes, dams, and access to piped water in all the sub-counties. Promote the use of safe and improved toilets in schools, health care facilities, workplaces, and public places by connecting households to piped sewer. Promote handwashing as a stop gap measure against COVID-19.

### ***Manufacturing, Trade and MSMEs***

To sustain growth in the manufacturing, trade and MSMEs sector,; Increase of market share of products and services in the NMR, regional and international markets; Develop and rehabilitation of key infrastructure in underserved locations; Leverage on NMR spur and expand its service industry; Improve the business operating environment.; Provide world class infrastructure facilities and utilities to support manufacturing value addition investments and human settlements; Integrate ICT in the development and management of infrastructure and utilities; Leverage on the Jomo Kenyatta International Airport, Wilson Airport, and the Standard Gauge Railway as transport and logistics hubs; Ensure a safe and secure county supportive of endeavours of residents, visitors and investors; Invest in the Conservation of the Environment for Sustainable Development; and Conserve wildlife and forest resources; and Concentrate on urban based economic activities such as industrial and manufacturing of garments, textiles, fisheries and tea, ICT, knowledge-based services and biotechnology targeting global/ international markets.

### ***Infrastructure, housing and urban development***

To further develop the infrastructure, the county is to identify county significant infrastructure projects, with project speed emphasis, for implementation to support economic recovery from the effects of the pandemic. Further the county should focus on increasing the share of unpaved roads in good and fair condition to above 62 per cent which is the national average. For the unpaved road network, focus on adopting the Low Volume Sealed Roads (LVSR) technology for greater network coverage cost effectively. The county should also adopt climate smart road engineering designs to safeguard road and bridge infrastructure from floods and to harvest storm water for irrigation and productive use.

### ***Tourism***

To re-engineer and recover tourism sector the following measures will be undertaken: Tourism product diversification and marketing to include eco-tourism, agro-tourism, sport-tourism, medical-tourism and cultural tourism; protection of cultural and heritage assets; establishment of a cultural documentation centre; investment in tourism infrastructure improvement: rehabilitation of existing sites / development of new ones in the county; Enforcement of sanitation guidelines for reopening of the hospitality sub-sector to support containment of the COVID-19 pandemic; Development of tourism infrastructure (routes to the attraction sites such as Fourteen falls and Kireita forest, star-rated hotels, tourist sites, tented camps); Enforcing guidelines on high sanitation standards for the hospitality sector to stop the spread of COVID-19 and other pandemics while ensuring business continuity; Inspect all the tourism establishments in the county and train tourism service providers.

### ***Health***

Under the health sector, create awareness on immunization so that mothers can ensure their children get immunized. Implement a comprehensive human resource health management system including undertaking training needs assessments and information system to ensure skilled and motivated health care workers, equitable deployed across all sub-counties. This is in addition to paying the salaries in time to avoid cases of strikes and low staff morale. Recruit additional of public health officers and community health workers



to strengthen preventive and public health systems. COVID-19 has worsened the situation as far as youths and women are concerned. These are the groups of people that have been facing several challenges even before the outbreak of the COVID-19. Gender based violence cases have increased with the lock down. Youths who are entrepreneurs have also been affected losing jobs and businesses due to the lockdown. Other problems facing youths includes teenage pregnancies, malnutrition, STI/HIV and Aids, poor environment, drug and substance abuse and malnutrition.

### ***Education and training***

The County with support from stakeholders to invest in early childhood development through infrastructural development; deployment of ECDE teachers and provision of sanitation facilities. Provide financial or in-kind support, such as school feeding, to help families overcome the increased costs of attending school and provide psychosocial support to teachers and learners during and after the pandemic.

### ***Social protection***

Build linkages with other Ministries, and with NGOs that work with vulnerable groups to strengthen families, deliver assistive devices, reduce barriers to access and provide vocational training. Undertake research to get a better understanding of the actual situation of disability and chronic illness in the County, and to map existing initiatives on social protection.

### ***Human resource***

The county will enhance investments and mechanisms for up skilling and reskilling, deepening technical skills as well as ICT skills; and retraining employees on how to work from home, where applicable. The county government will also protect workers in the informal economy by pursuing innovative policies to reach them quickly through a combination of non-contributory and contributory social security schemes and facilitating their transition to the formal economy in the longer term.

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