Socio-Economic Status of Kirinyaga County with COVID-19

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

KENYA INSTITUTE FOR PUBLIC POLICY RESEARCH AND ANALYSIS (KIPPRA)

Socio-Economic Status of Kirinyaga County with COVID-19

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

Kenya Institute for Public Policy Research and Analysis

2022

KIPPRA in Brief

The Kenya Institute for Public Policy Research and Analysis (KIPPRA) is an autonomous institute whose primary mission is to conduct public policy research leading to policy advice. KIPPRA's mission is to produce consistently high-quality analysis of key issues of public policy and to contribute to the achievement of national long-term development objectives by positively influencing the decision-making process. These goals are met through effective dissemination of recommendations resulting from analysis and by training policy analysts in the public sector. KIPPRA therefore produces a body of well-researched and documented information on public policy, and in the process assists in formulating long-term strategic perspectives. KIPPRA serves as a centralized source from which the Government and the private sector may obtain information and advice on public policy issues.

Published 2022

Bishops Garden Towers, Bishops Road
PO Box 56445-00200 Nairobi, Kenya
tel: +254 20 2719933/4; fax: +254 20 2719951
email: admin@kippra.or.ke
website: http://www.kippra.org

The KIPPRA Special Reports Series deals with specific issues that are of policy concern. The reports provide in-depth survey results and/or analysis of policy issues. They are meant to help policy analysts in their research work and assist policy makers in evaluating various policy options. Deliberate effort is made to simplify the presentation in the reports so that issues discussed can be easily grasped by a wide audience. KIPPRA appreciates any comments and suggestions arising from this report.

Table of Contents

Abbreviations and Acronyms ix
Acknowledgements x
Executive Summary xi

1 Introduction and Structure of Kirinyaga County Economy 1

1.1 Introduction 1
1.2 Level of Socio-economic Deprivations 3
1.3 Structure of Kirinyaga County Economy 4
1.4 COVID-19 Caseload and Implications of Mobility Restrictions 4

2 Socio-Economic Effects of COVID-19 7

2.1 Fiscal Policy 7
2.2 County Expenditure Analysis 10
2.3 Key Messages 15
2.4 Recommendations 14

3. Agriculture, Livestock and Fisheries 16

3.1 Characteristics of the Sector 16
3.2 Opportunities with COVID-19 in Agriculture Sector 26
3.3 Emerging Issues 28
3.4 Recommendations 28

4. Water, Sanitation, and Hygiene 30

4.1 Characteristics of the Sector 30
4.2 Opportunities with COVID-19 in WASH 37
4.3 Emerging Issues 37
4.4 Recommendations 38

5. Manufacturing, Trade and MSMEs 39

5.1 Characteristic of the Sector 39

5.2 Opportunities with COVID-19 in Industrial Recovery and Growth 54

5.3 Emerging Issues 55

5.4 Recommendations 55

6. Infrastructure 57

6.1 Transport Sector 57

6.2 Information and Communication Technology 61

7. Housing and Urban development 66

7.1 Characteristics of the Sector 66

7.2 Opportunities 69

7.3 Emerging Issues 69

7.4 Recommendations 69

8. Tourism 71

8.1 Characteristic of the Sector 71

8.2 Opportunities with COVID-19 in Tourism Sector 71

8.3 Emerging Issues 71

8.4 Recommendations 72

9. Health 73

9.1 Characteristics of the Sector 73

9.2 Opportunities with COVID-19 in Health Sector 79

9.3 Emerging Issues 80

9.4 Recommendations 80

10. Education and Training 81

10.1 Characteristics of the Sector 81

10.2 Opportunities with COVID-19 in Education and Training 87

10.3 Emerging Issues 87

10.4 Recommendations 87

11. Social Protection 89

11.1 Characteristics of the Sector..... 89

11.2 Opportunities with COVID-19 in Social Protection 92

11.3 Emerging Issues 93

11.4 Recommendations..... 93

12. Labour Participation 94

12.1 Characteristics of the Sector..... 94

12.2 Opportunities with COVID-19 in Human Resource Sector..... 97

12.3 Emerging Issues 97

12.4 Recommendations..... 97

13. Conclusion and Key Recommendations 99

13.1 Conclusion 99

13.2 Key Recommendations 101

List of Tables

Table 1.1: Development indicators in Kirinyaga County 1
Table 1.2: Population distribution for selected age groups in the county (2019) 2
Table 1.3: Level of deprivations for the various indicators for multidimensional poverty in the county 3
Table 1.4: Total COVID-19 cases and mobility stringency 5
Table 2.1: Monthly cash transfers from National Government 8
Table 2.2: County departmental spending (Ksh million) 12
Table 3.1: Distribution of households practicing agriculture, fishing and irrigation by county and sub-county 16
Table 3.2: Distribution of households growing crops by type, county and sub-county 17
Table 3.3: Distribution of households growing permanent crops by type and county 18
Table 3.4: Fruits grown in Kirinyaga County 18
Table 3.5: Vegetables grown in Kirinyaga County 19
Table 3.6: Medicinal and Aromatic Plants (MAPs) grown in Kirinyaga County 19
Table 3.7: Flowers grown in Kirinyaga County 20
Table 3.8: Distribution of households rearing livestock and fish by county and sub-county 20
Table 5.1: Distribution of manufacturing firms by gender and size - N (%) 41
Table 5.2: Employment by gender and size for manufacturing firms 42
Table 5.4: Distribution of MSMEs by gender and size -N (%) 49
Table 5.5: Employment by gender and size - N (%) 50
Table 5.6: Level of innovation by MSMEs 51
Table 7.1: Distribution of population by urban centres and gender 66
Table 9.1: Health provision 73
Table 9.2: Percentage distribution of the population that reported sickness/injury by type of health provider in the County (%) 74
Table 9.3: Percentage distribution of the county's population with health insurance cover by type of health insurance provider (%) 75
Table 9.4: Proportion of children aged 0-59 months by place of delivery (%) 75
Table 9.5: Proportion of children aged 0-59 months immunized against measles 76
Table 9.6: Health sector performance 77
Table 10.1: Gross attendance ratio and net attendance ratio by educational level in Kirinyaga County 82
Table 10.2: Gross and net enrolment rate (%), 2019 82
Table 10.3: Percentage distribution of population aged 15 years and above by ability to read and write (%) 83
Table 10.4: Percentage distribution of population by highest educational qualification 84
Table 10.5: Percentage distribution of residents 3 years and above who had ever attended school by highest level reached, and sex for Kirinyaga County (%) 85
Table 11.1: The proportion of households by the first severe shock in the County 90
Table 11.2: The proportion of households that received cash transfers by source, and household headship 91

Table 12.1: Distribution of population age 5 Years and above by activity status, and sex in the County 95

List Figures

Figure 1.1: Structure of the county economy, 2013-2020 4
Figure 1.2: New COVID-19 cases and national mobility stringency....5
Figure 1.3: Effects of COVID-19 on Kirinyaga economic performance and national mobility stringency 6
Figure 2.1: Share of county revenues by source 7
Figure 2.2: Annual own source revenue targets and actual collections 9
Figure 2.3: Quarterly own source revenue collection 9
Figure 2.4: County expenditure analysis 11
Figure 2.5: County government expenditure by economic classification (% of total county government expenditure 12
Figure 2.6: Approved expenditure and absorption rate 13
Figure 2.7: Profile of county pending bills 14
Figure 3.1: Scale of operation: per cent of households 17
Figure 3.2: Agriculture related labour force participation....21
Figure 3.3: Changes in hours worked by in agriculture related occupations 22
Figure 3.4: Limited access to markets to purchase food items....22
Figure 3.5: Reason for limited access to markets/grocery stores....23
Figure 3.6: Percentage of households experiencing change in food commodity prices....23
Figure 3.7: Proportion of households facing large food price shocks....24
Figure 3.8: Percentage of households reporting that the following food items were not readily available in their locality....24
Figure 3.9: Percent of households where the following strategies were adopted for at least one day 25
Figure 3.10: Percentage of households who experienced the below shocks in the past two weeks the KNBS Wave 2 survey....25
Figure 4.1: Access to water by households 31
Figure 4.2: Access to improved and unimproved sources of water by households 32
Figure 4.3: Access to safe drinking water by households 32
Figure 4.4: Volumes of water used by households in a month 33
Figure 4.5: Distance covered by households to and from water sources....33
Figure 4.6: Access and reliability to water sources by households 34
Figure 4.7: Access to sanitation in Kirinyaga County 35
Figure 4.8: Access to improved and unimproved sanitation by households 35
Figure 4.9: No. of households sharing a toilet facility 36
Figure 4.10: Access to wash during the COVID-19 period 36
Figure 5.1: Sector of operation in manufacturing....39
Figure 5.2: Manufacturing firms by sector and size 40

Figure 5.3: Location of manufacturing firms by premises 41
Figure 5.4: Distribution of manufacturing firms by gender and sector 42
Figure 5.5: Employment by gender and size for manufacturing firms 43
Figure 5.6: Source of markets 43
Figure 5.7: Source of markets 44
Figure 5.8: Source of material inputs 44
Figure 5.9: Sources of finance 45
Figure 5.10: Recent sources of credit 46
Figure 5.11: Main purpose of credit 46
Figure 5.12: Constraints faced by manufacturing firms 47
Figure 5.13: Distribution of MSMEs by size 48
Figure 5.14: Sector of operation by MSMEs 48
Figure 5.15: Location of businesses by premises 49
Figure 5.16: Education levels of MSME owners 50
Figure 5.17: Main constraints faced by MSMEs 52
Figure 5.18: Effects of COVID-19 on household non-farm and farm businesses 53
Figure 5.19: Labour dynamics on household non-farm and farm businesses 53
Figure 6.1: Main means of transport 57
Figure 6.2: How has the cost of your MAIN travel changed 58
Figure 6.3: Change in travel patterns 58
Figure 6.4: Has delivery of your household goods and services been affected by COVID-19? 59
Figure 6.5: Road condition mix-classified road network 59
Figure 6.6: Percentage distribution of conventional households by ownership of ICT assets KPHC 2019 62
Figure 6.7: Why doesn't this household have any type of Internet connection? 62
Figure 6.8: Type of Internet connection 63
Figure 6.9: Mobile money transfers subscription and mobile money banking platform 63
Figure 7.1: Distribution of households renting/Provided with the main dwelling unit by provider 66
Figure 7.2: Has your household paid the rent for April 2020 on the agreed date 67
Figure 7.3: Was the household paying rent on the agreed date with the landlord before COVID-19? 68
Figure 7.4: What is the MAIN reason that has made your household unable to pay rent? 68
Figure 7.5: What measures has your household taken to overcome the effects of Corona Virus – rent 69
Figure 9.1: COVID-19 testing, 2020 78
Figure 10.1: Access to ICT in households and schools 86
Figure 12.1: Effects of COVID-19, 2020 96
Figure 12.2: Difference between usual hours worked and actual hours worked during COVID-19 period 96

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

Acknowledgements

The development of the County Technical Reports was a combined effort of various departments at the Kenya Institute for Public Policy Research and Analysis (KIPPRA) with support and inputs from the Council of Governors and the 47 Counties. Specifically, the Institute wish to thank KIPPRA's Executive Director Dr Rose Ngugi for guiding the process. We would also like to thank the entire KIPPRA technical and research team comprising Dr Eldah Onsomu, Dr Evelyne Kihiu, Mutuku Muleli, James Gachanja, Rogers Musamali, Paul Lutta, Daniel Omanyo, Hellen Chemnyongoi, Shadrack Mwatu, Nahashon Mwongera, Paul Odhiambo, Beverly Musili, Violet Nyabaro, Japheth Kathenge, Haron Ngeno, Elton Khaemba, Rosemary Murebu, Michael Ogolla, Beatrice Mwangi and Ephantus Kimani for their tireless contributions to the success of preparing the report.

Executive Summary

Fiscal policy

The county total revenue has significantly increased over the years as the Government focus on enhanced services to the citizens. In Kirinyaga County, total revenue increased from Ksh 3.09 billion in 2013/14 to Ksh 5.92 billion in 2020/21 with an average growth rate of 13.14 per cent. The amount realized in 2020/21 was 98.9 per cent of the annual budget allocation of Ksh 6.79 million, an improvement from 89.2 per cent attained in 2019/20. 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. In 2014/15 the county reported Ksh 201.0 million in pending bills. The county did not report pending bills at the end of 2019/20. In 2020/21 pending bills amounted to Ksh 402.1 million. Generally, pending bills related to development spending have been greater than those related to recurrent expenditure on average accounting for 55.2 per cent of the pending bills portfolio over the review period. To steer the county towards achieving its budgetary objective and development goals contained in the ADPs and CIDP, the county government needs 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

Crops and livestock production account for a significant share of the economic activity of Kirinyaga County. Key agricultural value chain commodities in the County include maize, beans, bananas, kales, sweet potatoes, potatoes, rice, cassava, coffee, macadamia, tea, avocado, mangoes, cattle, goats, sheep the County has promoted poultry production and bee keeping (apiculture). 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 is faced challenges in revenue collections with COVID-19 which 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: Consider an emergency rescue package for businesses and traders hard-hit by the effects of COVID-19 in the short run. The emergency Fund, supported by development partners and other stakeholders, can be used to identify, and support the most vulnerable businesses and entrepreneurs affected by COVID-19. Related, the County will inject some stimulus to cushion the businesses and traders through affordable credit; waiver of some County taxes, cess, and other charges; Spur innovation and promote manufacturing and industry development and generation of

jobs for the youth; Establishments in the county will adopt to the new pandemic guidelines including rearranging floor plans to allow for social distancing; Undertake value addition activities in tomatoes and fruit processing in the County in collaboration with KIRDI; and Create forward and backward linkages for MSMEs involved in manufacturing for growth.

Infrastructure, housing, and urban development

The main means of transport used in the County is walking at followed by motorbike. The paved County Road network covers 57.25 km, while the paved National roads cover 190.65 km. Out of the total paved road network of 247.9 km, 62 per cent is in good condition, 36 per cent in fair condition and 2 per cent in poor condition. The status of ICT access and use in the county is low, especially among households. The housing tenure is predominantly owner occupied at 69.9 per cent, with 30.1 per cent of the households under rental tenure. With the advent of COVID-19 pandemic, households' ability to pay rent has been affected, with 31.99 per cent of the population indicating inability to pay rent on the agreed date. In addressing the prevailing challenges, the county to identify county significant infrastructure projects, with project speed emphasis, for implementation to support economic recovery from the effects of the pandemic; 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; Develop a policy to promote home ownership to address the problem of rent distress during times of emergency.

Tourism

The main tourist attractions in Kirinyaga County are physical attractions (Mt Kenya forest; Mt. Kenya National Park; Daraja ya Mungu ("God's Bridge"); numerous waterfalls; Water sports (Sagana white water rafting). Wildlife in Mt. Kenya Forest. The county has indigenous natural forests covering an area of 35876 Ha. which support eco-tourism product. There are several Heritage and cultural sites including Kirinyaga Mass Grave in Kerugoya; Muringa wa Giacai in Kanyekiini ward 'Darasa ya Ngai' (Gods bridge) in Murinduko ward; Munyu wa Ngungu and Ngungu fall in Kabare ward; Initial Kabare church; Munyu wa Kabonga in Kabare ward; Castle forest lodge in Kabare ward; Karaba prison; a mass grave site in Wamumu ward; Old structures within Wamumu rehabilitation school; Sagana old bridge in Kariti ward; Mugumo wa Kiini in Kiini ward; Shrine area at Kadongu. The strategies for re-engineering of the tourism sector include Mapping of tourist zones; registration of herbalists, Upgrading of the existing tourism facilities and creating additional facilities e.g. Mwea National Game Reserve to a National Park, Tourism infrastructure development: establish a golf resort; hiking routes; tourism tertiary training facilities; recreation / amusement parks; establishment of a tourism information centre; Animal Sanctuary; , Establishment of annual tourism expos; cultural competition, Renovation of cultural heritage sites / assets, Diversification of tourism product: home-stays; golf tourism (an 18 hole golf course); medical tourism; eco- and conference tourism, mountain climbing, mountain hiking, motor racing, water sporting and golfing, Enabling environment for tourism investment and Enhance international and domestic tourism marketing.

Health

In Kirinyaga county, there are 109 public health institutions, 39 mission/NGO institutions the largest one being Mwea Mission hospital and 54 private clinics.There are 3 level four facilities located in Kirinyaga, Central, Gichugu and Mwea Constituencies. In addition, there is one private hospital namely Mt. Kenya hospital located in Kerugoya town. In addition to these, there are 10 level three facilities, 45 level two facilities and 51 level one facilities which are spread all over the County. The doctor to population ratio is 1:36,339 and the average distance to the nearest health facility is 5 km. 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

Kirinyaga County has a total of 348 pre-primary centres, 326 primary and 143 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 in preparation for re-opening.

Currently Kirinyaga County has 198 public ECDE centres manned by 447 ECDE teachers under contract. The ECDE enrolment as of May 2017 was 15,851. This implies the teacher child ratio stand at 1:36. The ECDE centres are still allocated within the public primary schools except for five (5) which are standalone ECDE centres and feeder schools to nearby primary schools. The transition rate has improved from 14,834 in 2013 to 15,851 in 2017. The Kirinyaga DVET sub-sector has a total of 105 instructors constituting of 10 home craft instructors and 95 polytechnic instructors, and 12 principals. The current enrolment is at 752 students in the year 2017. The instructor trainee ratio currently stands at 1:6. 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

According to the KNBS census 2019, Kirinyaga county has a population of 610,411 of which 6.5 per cent are the elderly and 3.4 per cent are people living with disabilities. The overall poverty rates in the county stand at 44 per cent which is higher than the national average (36.1 per cent). Despite being an agricultural county, the county's food poverty levels are at 20 per cent and 17 per cent of the total population is multi-dimensionally poor. Further, about 17 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. Agriculture is the main economic activity in Kirinyaga County. The county is best known for rice production at the Mwea Irrigation Scheme. Coffee and tea are also grown in the cooler areas of Ndia, Gichugu, and Kirinyaga Central constituencies. Majority of the people in the county depend on the sub sector for their livelihood. The County 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 will also protect workers in the informal economy by pursuing innovative policies non-contributory and contributory social security schemes and facilitate transition to the formal economy in the longer term.

1. Introduction and Structure of Kirinyaga County Economy

1.1 Introduction

Kirinyaga County is one of the counties in the Central Region Economic Bloc (CEREB). The county occupies a land area of 1,435.6 km^2.The county has an estimated population of 610,411 people of whom 49.4 per cent are male and 50.5 per cent female (KNBS, 2019) as indicated in table 1. Of the population 18,875 (3.4 per cent) were persons with disabilities. The youth constituted 36.0 per cent of the population of whom 56.0 per cent were female. The County has a population density of 413 per square kilometer. About 77.7 per cent of the population live in rural areas of whom 6.5 per cent are female. The elderly population (65 years and above) made up 58.3 per cent of the total population of whom 58.3 per cent were female. The population in school going age group (4-22 years) was 35.3 per cent in 2019.

In 2015/2016, the overall poverty rate in Kirinyaga County was 20.0 per cent against the national poverty rate of 36.1 per cent. In addition, 18.7 per cent of the population were living in food poverty and 43.5 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, 17.2 per cent of the children were stunted as compared to the average national level at 26.0 per cent.

Table 1.1: Development indicators in Kirinyaga County

Estimated County Population (KNBS, 2019)	County	National
	610,411	1.1% of the total population
Males	302,011	49.1%
Females	308,369	50.8%
Intersex	31	0.005%
Estimated Population Density (km^2)	413	82
Persons with disability	3.4%	2.2%
Population living in rural areas (%)	77.7%	68.8%
Children (0-14 years) (%)	33.2%	41.1%
School going age (4-22 years) (%)	35.3%	68.7%

Youth 15-34 years (%)	36.0%	36.1%
Labour force (15-64 years) (%)	59.4%	55.0%
Elderly population (over 65-year-old)	3.4%	3.9%
Number of COVID-19 cases (as of 11th September 2020) (MOH); National cases were 35,232 people	84	0.25% of the national cases
Poverty (2015/2016) (%)	20.0%	36.1%
Food Poverty (2015/2016) (%)	187%	31.9%
Multidimensional Poverty (2015/2016) (%)	43.5%	56.1%
Stunted children (KDHS 2014)	17.2%	26%
Gross County Product (Ksh million)	130,263(2020)	1.3% Average share to total GDP (2013-2020)
Average growth of nominal GCP (2013-2020) (%)	14.0 per cent	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 196,599 individuals. They are followed by persons aged between 6-13 years who are the primary school children comprising of 94,929 of the county population. The under 0-3 age comprise of 46,242 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	23,282	22,960	46,242
Pre-primary school age (Under 4-5)	11,174	11,122	22,296
Primary school age (6 -13)	47,580	47,349	94,929
Secondary school age (14-17)	25,033	24,569	49,602
Youth population (15-34)	97,514	99,085	196,599
Female reproductive age (15-49)		162,651	162,651
Labour force (15-64)	172355	173541	173,541
Aged population 65+	3,634	5,155	8,789

Data Source: KNBS (2019)

1.2 Level of Socio-Economic Deprivations

In 2015/2016, 29.1 per cent of the population had health insurance cover, 14.5 percent lived in premises with water, 71.2 per cent lived in their own homes and 84.9 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 43.5 per cent.

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

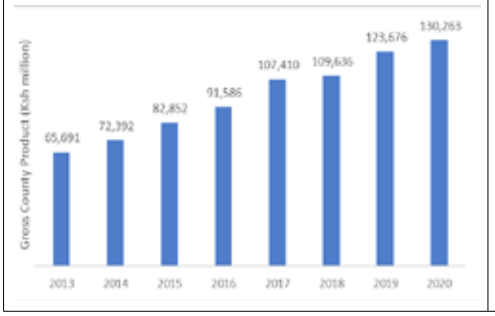
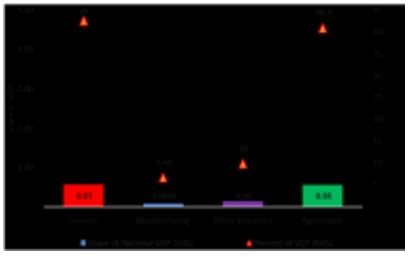
Indicator	Details	Percentage Distribution (%)
Health care	Population with Health Insurance Cover	29.1
Drinking water (Time taken to fetch)	Zero (In premises)	14.5
	less than 30 minutes	81.5
	30 minutes or longer	3.9
Sanitation and Hygiene	Proportion of households with toilet facility	99.8
	Shared Toilet	51.5
	Not Shared	48.5
	Place to wash hands outside toilet facility	20.6
	No place to wash hands outside toilet facility	79.4
Education (Population 3 years and Above by School Attendance Status)	Ever Attended	95.3
	Never Attended	4.4
Knowledge of health and nutrition (children aged 0-59 months that participated in Community Nutrition Programmes)	Participated in Community Nutrition Programmes	5.5
	Did not Participated in Community Nutrition Programmes	91.8
Housing and standard of living (house ownership)	Owner Occupier	71.2
	Pays Rent/ Lease	25.5
Access to information (Population Aged 3 years and above by ICT Equipment and Services Used)	Television	71.3
	Radio	94.8
	Mobile phone	84.9
	Computer	8.6
	Internet	13.9

Source: KIHBS 2015/16

1.3 Structure of Kirinyaga County Economy

Kirinyaga County Gross County Product (GCP) accounted for 1.3 per cent of total Gross Domestic Product (GDP) between 2013 and 2020 as reported in figure 1.1. The GCP increased from Ksh 65,691 million in 2013 to Ksh 130,263 million in 2020 representing an average annual growth rate of 14.0 per cent. The service sector contributes 43.0 per cent of GCP while agriculture, Manufacturing and other industries sector share constituted 40.9 per cent, 6.63 per cent and 10.0 per cent, respectively. The services sector includes such activities as wholesale and retail trade. Agriculture is mainly dominated by crop farming (Coffee, Tea and Rice) and livestock production while industries and manufacturing include production of consumer goods such as plastics, furniture, textiles, and food processing.

Figure 1.1: Structure of the County economy, 2013-2020

a) County Gross Product	b) Sector Contribution as share of GCP
	

Data Source: KNBS (2019)

1.4 COVID-19 caseload and implications of mobility restrictions

As of March 2020, Kirinyaga County had zero cases. However, by August 2020, the County had reported 4 COVID-19 cases with mobility stringency of 70.4. The caseload would rise to 1,345 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

Date	Total cases	Mobility stringency (0-100)
13th March 2020	0	36.1
23rd August 2020	4	70.4
23rd August 2021	1,345	56.0

Data Source: Oxford University

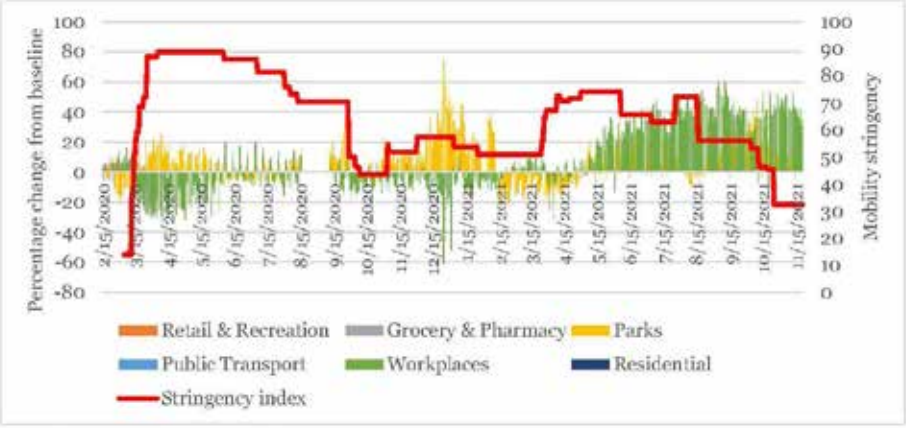
New COVID-19 cases in Kirinyaga County were highest between October 2020-January 2021, March 2021-May 2021 and July 2021-August 2021. During the three time-periods, spikes in new cases in the County were preceded by relaxation of COVID-19 mobility restrictions. Reduction in the County's new cases was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

Figure 1.2: New COVID-19 cases and national mobility stringency

Data Source: Oxford University

Demand for parks and workspaces have been the largest beneficiaries of less stringent mobility restrictions in Kirinyaga County. Between October 2020 and March 2021 when mobility restrictions were least stringent, for instance, demand for parks registered the highest performance.

Figure 1.3: Effects of COVID-19 on Kirinyaga economic performance and national mobility stringency



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. Socio-Economic Effects of COVID-19

2.1 Fiscal Policy

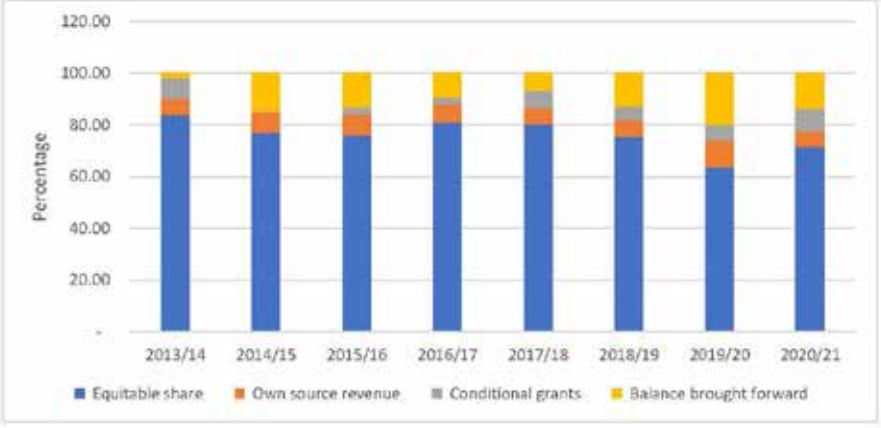
Financial resources are critical in achieving the counties development plans and settling its recurrent expenditures. The County's main revenue sources comprise of the transfers from the National Government, Conditional Grants and its own source revenue (OSR).

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 Kirinyaga County, total revenue increased from Ksh 3.09 billion in 2013/14 to Ksh 5.92 billion in 2020/21. The amount realized in 2020/21 was 98.9 per cent of the annual budget allocation of Ksh 6.79 million, an improvement from 89.2 per cent attained in 2019/20.

Equitable share from the National Government is the main source of county revenue and accounted for more than 70 per cent of total revenues over period under review, save for 2019/20 when it accounted for 63.68 per cent (Figure 2.1). The share of equitable share declined slightly over the years due to the increase in the share of conditional grants and it's OSR. Despite the decline in the share of equitable share to total revenue, nominal value has grown by 64 per cent from Ksh 2.59 billion in 2013/14 to Ksh 4.24 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 implied that the County received all expected amount from the National Government to finance its operations, underscoring its commitment to support county operations through timely financing.

Figure 2.1: Share of county revenues by source



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

Monthly cash transfers from the National government have always had 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 170.4 per cent from Ksh. 1.57 billion in January to Ksh. 4.25 billion in June. In comparison to 2019, the total amount transferred to Kirinyaga County in March, April, May, and June of 2020 declined by 1.31 per cent from Ksh 13.09 billion to Ksh 12.91 billion.

Table 2.1: Monthly cash transfers from National Government

	Jan	Feb	Mar	Apr	May	Jun	Oct	Nov	Dec
2021	5,090.36	6,075.41	-	-	-	-	2,910.40	-	-
2020	1,571.76	2,040.13	2,485.45	2,880.30	3,303.94	4,253.87	2,621.56	3,133.85	4,115.89
2019	1,770.49	2,503.48	2,510.87	2,920.50	3,299.57	4,364.95	8,700.53	2,679.11	3,776.08
2018	1,453.21	1,918.73	2,322.07	2,674.81	3,119.22	4,642.21	1,333.01	2,324.66	3,738.49
2017	-	-	2,577.00	2,882.43	3,206.94	3,824.17	1,393.13	-	-
2016	-	-	2,069.86	2,671.35	2,972.10	2,972.10	-	-	-

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 165.53 million and Ksh 359.15 million from National Government and Development partners respectively. The contribution of condition grants to total revenue has increased over the years. On average, the grants contributed 5.04 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 117 per cent from Ksh 242.06 million in FY 2014/15 to Ksh 524.68 billion in the 2020/21. Aa a result, the County need to maintain good relations and comply fully to the requirements of its development partners to continue benefiting from the conditional grants.

Own Source Revenue

The share of OSR to the total revenue has similarly been robust. On average, OSR contributed 7.26 per cent to total revenues between 2013/14 and 2020/21 (Figure 2.1). Notably, in 2019/20, it contributed 10.25 per cent of the total revenues, an all-time high. The strong performance registered indicated some level of resilience in OSR collections amidst the adverse effects of COVID-19 pandemic experienced.

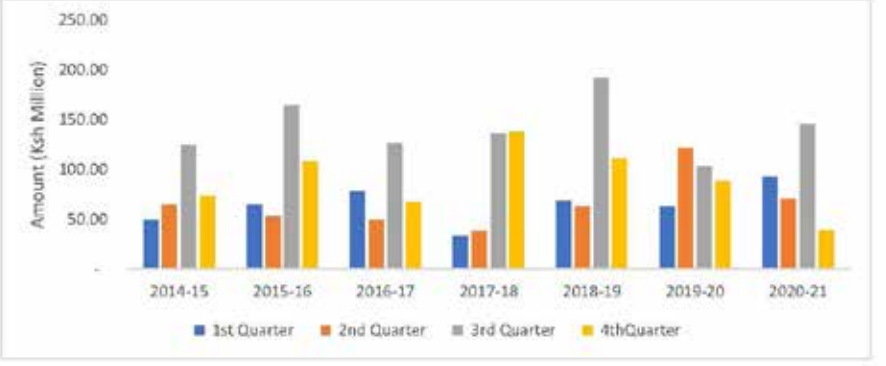
The performance of the annual OSR depicted fluctuating trends over the years (Figure 2.2). The ratio of OSR target versus the actual OSR indicate that the county achieved more than 50 per cent of its target all the years except for the 2016/17 when it achieved 43.14 per cent of its OSR target (Figure 2.2). In the 2019/20, the county generated Ksh 374.74 million as OSR, which was a 15.0 per cent decrease compared to Ksh 430.96 million realized in 2018/19. The decrease was premised on the adverse effects of COVID-19 pandemic that slowed down economic activities. During 2020/21, the county generated Ksh 346.52 million representing a decrease of 8.1 per cent compared to the amount realized in 2019/20. Easing of containment measures and recovery of economic activities is expected to boost the growth OSR, going forward.

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 third and fourth quarter beginning 2017/18 (Figure 2.3). This could be attributed to the collections of single business permits that are due on 31st March of every year. During 2019/20 and 2020/21, quarterly OSR collections remained robust, save for the last quarter of 2020/21. The performance show that the County remained resilient during the COVID-19 pandemic period as the Country experienced low economic activities. Maintaining the same growth trajectory is key for the county to improve on its OSR contribution to the total revenue.

Figure 2.3: Quarterly own source revenue collection



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

2.2 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"[1]. 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.

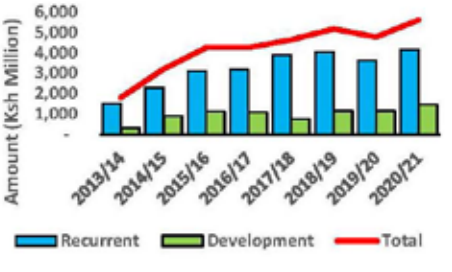
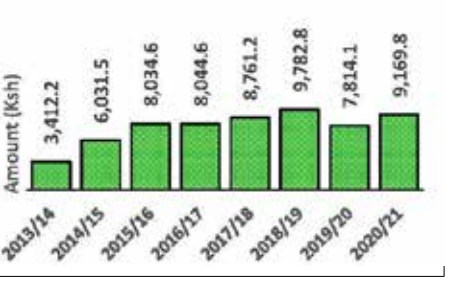
Despite their constrained fiscal autonomy (such as inability to borrow funds) and relatively small budgets, the county government has a key role to play in promoting growth as espoused in the Kenya Constitution. This is particularly the case with development expenditure, which is within the assigned 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. Total county expenditure has grown significantly since 2013/14. With the implementation of the first full year county budget in 2013/14, actual expenditure in the county increased from Ksh. 1,801.8 million to Ksh 5,597.3 million in 2020/21 (Figure 2.4). This translates to over 100 per cent increase in county spending over the period. Cumulatively the county has spent a total of Ksh. 33.5 billion between 2013/14 and 2020/21. This comprises of a cumulative Ksh 25.7 billion and Ksh. 7.8 billion on recurrent and development expenditures representing 76.6 per cent and 23.4 per cent of the cumulative recurrent and development expenditure respectively. This signals that development expenditure is required to support deepening of capital spending in the county.

1 UN General Assembly (2014), p. 22, par. 94.

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 basis has more than doubled over the period. In 2013/14, per capita spending in the county was about Ksh 3,412.2 compared Ksh 9,169.8 in 2020/21. Between 2013/14 and 2020/21 per capita spending averaged Ksh 7,631.3.

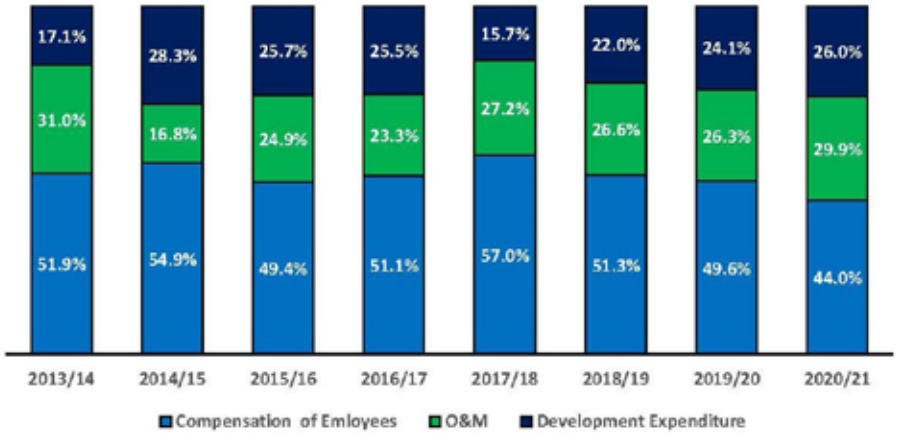
Utilization of public resources in the county

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 23.1 per cent of total expenditure. In 2013/14 development expenditure accounted for 17.1 per cent. This increased to 28.3 per cent in 2014/15. However, between 2014/16 and 2017/18 it followed a decreasing path as shown in Figure 2.5. Development expenditure increased in 2018/2019 to 22.0 per cent and further to 24.1 per cent at the end of 2019/20 and 26.0 per cent in 2020/21 reflecting the needed intensity of capital expenditure deepening in the county.

Whereas development expenditure performed relatively low compensation of employees was above 35.0 per cent. The average share of compensation of employees in total county expenditure over the review period was 51.2 per cent. More spending on compensation of employees implies reduced funds available for development and emergency situations such as the COVID-19 pandemic.

Figure 2.5: County government expenditure by economic classification (% 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 64.3 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 (34.8 per cent); transport roads and public works (8.8 per cent); education youths and sports (5.4 per cent); water, environment and natural resources (4.9%); agriculture, livestock and fisheries (6.2%); physical planning and development (1.4%); trade development and co-operatives (1.6%); and gender culture and social services (1.3%). On the other hand, coordinational and administrative functions accounted for a combined average of 35.7 per cent with finance and economic planning leading at 13.5 per cent, county assembly following at 12.1 per cent while county executive services accounted for 10.0 per cent.

Table 2.2: County departmental spending (Ksh million)

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	Average spending	Average share of spending (%)
Medical Services and Public Health	202.5	1,294.7	1,393.0	1,746.3	2,100.0	2,070.1	2257.04	1,580.5	34.8
Finance and Economic Planning	1,739.9	508.0	432.6	416.8	365.9	354.9	489.6	615.4	13.5
County Assembly	201.2	488.0	473.4	652.3	626.8	570.8	838.7	550.2	12.1
County Executive	152.8	430.9	501.8	468.9	519.2	564.4	557.8	456.5	10.0
Transport, Roads and Public Works	240.7	362.2	433.1	569.8	500.0	263.0	420.7	398.5	8.8
Agriculture, &Livestock, Development	61.5	272.7	316.1	247.3	336.9	387.7	357.1	282.7	6.2
Education, Youth & Sports	155.8	224.8	280.2	239.5	274.5	223.2	311.4	244.2	5.4
Environment and Natural resources	342.2	387.2	260.0	118.9	144.8	116.4	185.8	222.2	4.9
Trade Development and Cooperatives	20.3	112.8	56.7	97.3	104.0	78.4	53.3	74.7	1.6
Physical Planning And Development	41.8	59.2	32.5	22.8	141.7	79.4	71.4	64.1	1.4
Gender/Culture and Social Services	26.2	102.2	67.3	44.6	50.4	61.4	54.5	58.1	1.3
Total	**3,184.9**	**4,242.7**	**4,246.6**	**4,624.3**	**5,164.1**	**4,769.7**	**5,597.3**	**4,547.1**	**100.0**

Data Source: Office of the Controller of Budget

Effectiveness of County spending

Total budget execution averaged 79.5 per cent in the period FY 2013/14 to 2020/21. In 2013/14 overall total budget execution stood at 59.5 per cent. This execution improved to 77.7 per cent in 2014/15 and 88.8 per cent in 2015/16 before falling to 81.0 per cent in 2016/17 and an improvement to 87.4 per cent in 2018/19. Execution of the budget declined to 77.8 per cent at the end of 2019/120 and then improved to 82.4 per cent in FY 2020/21, implying that only Ksh. 5,597.3 million was utilized out of the Ksh. 6,795.6 million approved budget (Figure 2.6).

With regard to development budget execution in the county, the average absorption rate between 2013/14 and 2019/20 was 56.3 per cent (implying that on average over 43.7 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 keep help achieve the targets in ADPs and the CIDP. On recurrent expenditure, the execution has been robust over the years, absorption rate averaging 90.9 per cent leaving about 9.1 per cent of unspent recurrent budget.

Figure 2.6: Approved expenditure and absorption rate

Figure 2.6a: Approved versus actual county spending (Ksh Million)

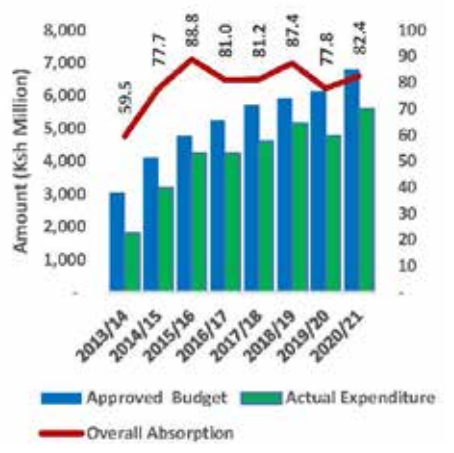
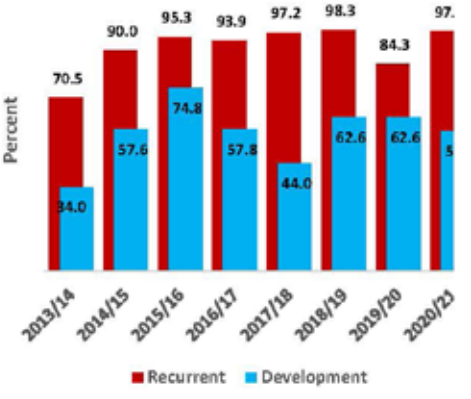


Figure2.6b: Absorption rates for recurrent and development expenditures (per cent)



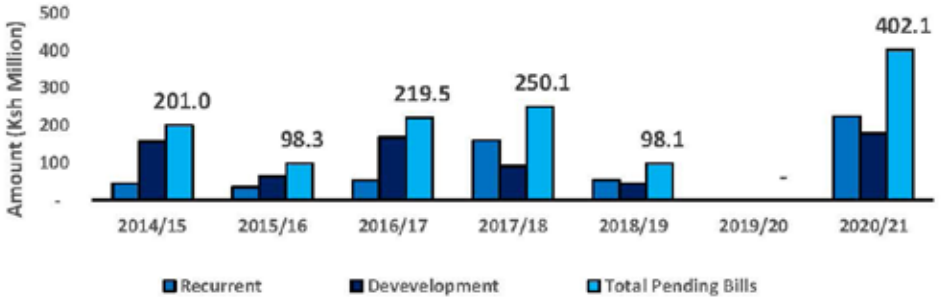
Data Source: Office of the Controller of Budget

Pending Bills

In 2014/15 the county reported Ksh. 201.0 million in pending bills. This dropped to Ksh 98.3 million in 2015/16 with development related pending bills accounting for 64.8 per cent of this. Pending bills increased to Ksh 219.5 million in 2016/17 and to Ksh 250.1

million in 2017/18 before decelerating to Ksh 98.1 million in 2018/19. The county did not report pending bills at the end of 2019/20. In 2020/21 pending bills amounted to Ksh 402.1 million. Generally, pending bills related to development spending have been greater than those related to recurrent expenditure on average accounting for 55.2 per cent of the pending bills portfolio over the review period.

Figure 2.7: Profile of county pending bills



Data Source: Office of the Controller of Budget

In order 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 as well as 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.

2.3 Key Messages

From the foregoing, the following are observed:

(i) County wage bill has largely remained well above 50 per cent of county spending averaging 51.2 per cent while development spending averaging 23.1 per cent.

(ii) Priority expenditure has been on non-administrative and non-coordinational functions such as health, education, agriculture, roads etc., accounting for an average of 64.3 per cent of actual expenditure. Health sector leads at 34.8 per cent. Administrative and coordinational functions such as county executive, county assembly, public service management and finance account for 35.7 per cent of expenditure.

(iii) Budget execution as measured by absorption rate has been moderately improving over the review period. Average overall absorption rate stands at 79.5 per cent. Average development budget absorption rate stands at 56.3 per cent while that of recurrent expenditure stands at 90.9 per cent.

(iv) Pending bills have been burgeoning over the review period with development related pending bills accounting for over 55.2 per cent.

2.4 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 project 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 Kirinyaga County. About 40 per cent of the County economic activity is driven by the agriculture sector. In 2017, agriculture accounted for Ksh 41,208 million out of the total Ksh 100,836 million Gross County Product (GCP) amounting to 40.9 percent of the County's GCP.

Over 60 per cent of the households in Kirinyaga County practice farming. About 64 per cent of the households produce crops, 48 per cent produce livestock, 0.34 per cent practice aquaculture and about 0.88 per cent are involved in fishing. About 20.7 per cent of the households practice irrigation farming.

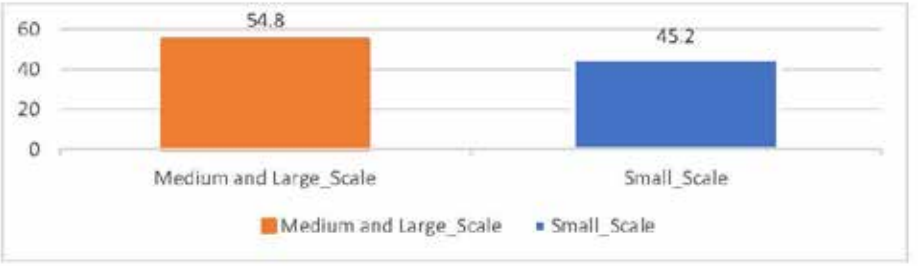
Table 3.1: Distribution of households practicing agriculture, fishing and irrigation by County and Sub-County

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
Kirinyaga	204,188	139,866	130,577	97,394	702	1,796	42,309
Kirinyaga Central	40,225	27,890	25,884	19,963	154	235	5,645
Kirinyaga East	44,571	36,150	34,695	26,424	184	388	7,495
Kirinyaga West	38,309	27,280	25,922	19,503	195	484	5,012
Mwea East	46,340	25,729	23,390	16,853	108	363	12,563
Mwea West	34,720	22,809	20,680	14,647	61	326	11,594
Mt. Kenya Forest	23	8	6	4	-	-	-

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 (45.2%) of the farming households in Kirinyaga County are "small-scale" farming with a land holding of 0.675 or less acres of land.

Figure 3.1: Scale of operation: per cent of households



Source: 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 Kirinyaga include maize, beans, bananas, kales, sweet potatoes, potatoes, rice and cassava.

Table 3.2: Distribution of households growing crops by type, County and Sub-County

County/Sub County	Kirinyaga	Kirinyaga Central	Kirinyaga East	Kirinyaga West	Mwea East	Mwea West	Mt. Kenya Forest
Maize	100,197	20,599	26,017	22,028	17,855	13,695	3
Beans	83,440	16,778	22,155	19,144	14,361	10,999	3
Bananas	73,990	17,432	26,011	17,617	7,892	5,037	1
Kales	40,338	10,337	14,083	7,961	4,659	3,296	2
Sweet Potatoes	25,556	4,705	7,676	7,243	3,226	2,705	1
Potatoes	22,133	4,489	9,543	2,302	5,477	322	-
Rice	21,557	1,399	1,139	1,193	7,991	9,835	-
Cassava	20,215	2,785	8,136	4,494	2,989	1,811	-
Sugarcane	19,104	3,704	7,848	4,392	2,096	1,064	-
Cabbages	18,370	6,341	7,674	2,966	957	430	2
Tomatoes	15,866	3,281	3,589	1,803	3,014	4,177	2
Onions	10,460	3,631	3,515	2,284	670	360	-
Sorghum	8,880	936	887	1,436	2,136	3,485	-
Green grams	4,285	166	277	299	1,530	2,013	-
Millet	2,643	320	264	319	498	1,242	-
Watermelons	2,049	141	498	304	807	299	-

Source: 2019 Kenya Population and Housing Census

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

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

County/Sub County	Tea	Coffee	Avocado	Citrus	Mango	Macadamia	Khat (Miraa)
Kirinyaga	25,135	47,835	19,691	2,429	15,311	28,508	5,821
Kenya	476,613	478,936	966,976	177,445	796,867	195,999	134,148

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 Kirinyaga's value of fruits production in 2019 amounted to Ksh 3.6 billion. The area under fruit was 5,582 Ha with a production of 204,983 MT. The major fruits grown in order of value importance are; banana, macadamia nuts, avocado, mango, tree tomato, purple passion fruits, watermelons and pawpaw.

Table 3.4: Fruits grown in Kirinyaga County

Type of Fruit	Area in Ha	Production in Tons	Value in Shillings
Banana	3,547	176,204	2,230,824,000
Macadamia Nuts	511	4,729	727,150,000
Avocado	718	12,965	320,930,000
Mango	394	5,677	128,850,000
Tree Tomato	85	1,110	45,100,000
Purple PASSION FRUITS	58	752	41,140,000
Watermelons	87	980	27,700,060
Pawpaw	124	1,786	27,422,000
Lemons	37	456	9,120,000
Thorn/Horn Melons	7	210	5,040,000
Loquats	6	60	1,200,300
S/Berry	2	20	601,200
Guavas	4	30	600,000
Oranges	2	4	80,000
Total	**5,582**	**204,983**	**3,565,757,560**

Source: Agriculture and Food Authority, 2019

In 2019, the value of vegetables production in the County amounted to Ksh 1.4 billion. The area under vegetables was 4,881Ha with a production of 17.3 million MT. The major vegetables grown in order of value importance are; tomato, french beans, potato, cabbage, spinach, kales, pumpkin fruit, bell pepper/sweet paper and butter nut.

Table 3.5: Vegetables grown in Kirinyaga County

Type of Vegetables	Area in Ha	Production in Tons	Value in Shillings
Tomato	807	20,555	745,560,000
French Beans	488	3,756	160,910,000
Potato	557	4,961	132,892,000
Cabbage	305	12,886	99,655,000
Spinach	224	2,441	47,280,000
Kales	2,040	17,284,473	45,765,049
Pumpkin Fruit	79	1,758	39,352,500
Bell Pepper/Sweet Paper	44	880	26,400,000
Butter Nut	30	813	20,785,000
Pumpkin Leaves	80	1,200	12,000,000
Cowpea	93	954	11,970,000
Courgettes/Squash/Marrow	21	245	9,100,000
Babycorn	21	423	8,925,000
Leaf Amaranth	77	714	7,420,000
Carrots	15	300	6,700,000
Total	**4,881**	**17,336,359**	**1,374,714,549**

Source: Agriculture and Food Authority, 2019

In 2019, the value of MAPs production in the County amounted to Ksh 32.8 million. The area under MAPSs was 119 Ha with a production of 1,085MT. The major MAPs grown are; Bulb Onion, Corriander and Spring Onion/Green Shallots.

Table 3.6: Medicinal and Aromatic Plants (MAPs) grown in Kirinyaga County

Medicinal and Aromatic Plants (MAPs)	Area in Ha	Production in Tons	Value in Shillings
Bulb onion	21	373	16,390,000
Corriander	61	363	9,755,000
Spring onion/green shallots	19	245	5,100,000
Long cayenne chilies	9	54	810,000
Bullet chilies	7	42	630,000
African birds eye [Abe] chillies	2	8	120,000
Total	**119**	**1,085**	**32,805,000**

Source: Agriculture and Food Authority, 2019

Floriculture is a key sub-sector in the agriculture sector and a major contributor of foreign exchange after diaspora, tourism and tea. The flowers grown in Kirinyaga County are Arabicum. In 2019, the value of Arabicum produced in the County amounted to KES 2.3 million. The area under flowers was 5Ha with a production of 750,000 MT.

Table 3.7: Flowers grown in Kirinyaga County

Type of Flowers	Area in Ha	Production in Tons	Value in Shillings
Arabicum	5	750,000	2,250,000

Source: Agriculture and Food Authority, 2019

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

Table 3.8: Distribution of households rearing livestock and fish by County and Sub-County

County/Sub County	Kenya	Kirinyaga	Kirinyaga Central	Kirinyaga East	Kirinyaga West	Mwea East	Mwea West	Mt. Kenya Forest
Indigenous Chicken	3,337,700	74,137	14,507	20,145	14,535	13,335	11,612	3
Goats	1,898,887	42,477	8,413	9,521	9,961	8,649	5,933	-
Exotic cattle -Dairy	939,916	29,013	7,798	9,861	7,548	2,280	1,525	1
Indigenous cattle	2,260,439	25,622	3,181	6,230	3,531	6,508	6,172	-
Sheep	1,299,893	9,616	1,375	2,416	1,882	1,956	1,987	-
Rabbits	124,122	8,727	1,989	2,465	2,032	1,339	902	-
Exotic cattle -Beef	167,625	8,588	2,414	3,329	1,859	633	352	1
Exotic Chicken Layers	194,517	4,680	940	1,426	963	738	613	-
Beehives	201,406	2,844	357	1,527	439	373	148	-
Pigs	110,383	2,410	782	507	396	360	365	-
Exotic Chicken Broilers	79,461	2,007	452	589	409	344	213	-
Fish Ponds	22,019	606	76	179	191	102	58	-
Donkeys	500,682	564	5	10	19	196	334	-
Fish Cages	3,361	54	6	17	17	7	7	-

Source: 2019 Kenya Population and Housing Census

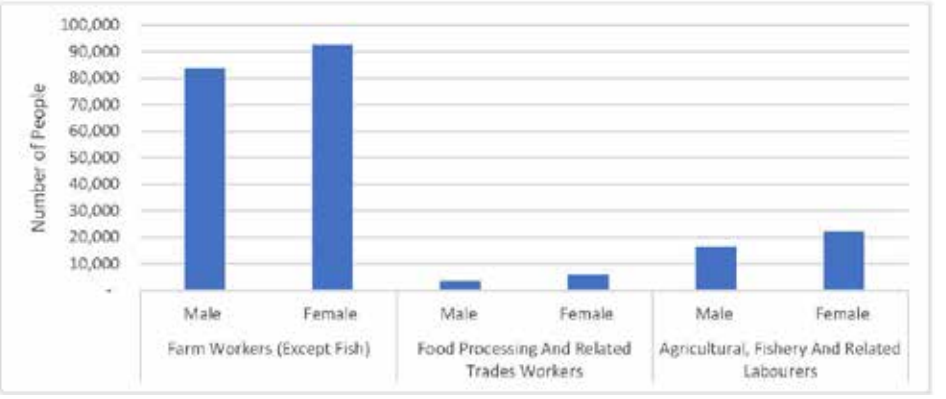
The above characterization of farming households highlights the priority value chain opportunities in maize, beans, bananas, kales, sweet potatoes, potatoes, rice, cassava, coffee, macadamia, tea, avocado, mangoes, cattle, goats, sheep the County has promoted poultry production and bee keeping (apiculture). With majority of the households farming the identified products, the Kirinyaga 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 Kirinyaga indicates relative parity between females and males with no strong dominance of either gender in the labor force. Majority of the population in Kirinyaga 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 classifications are based on the Kenya National Occupational Classification Standard (KNOCS)

Figure 3.2: Agriculture related labor force participation

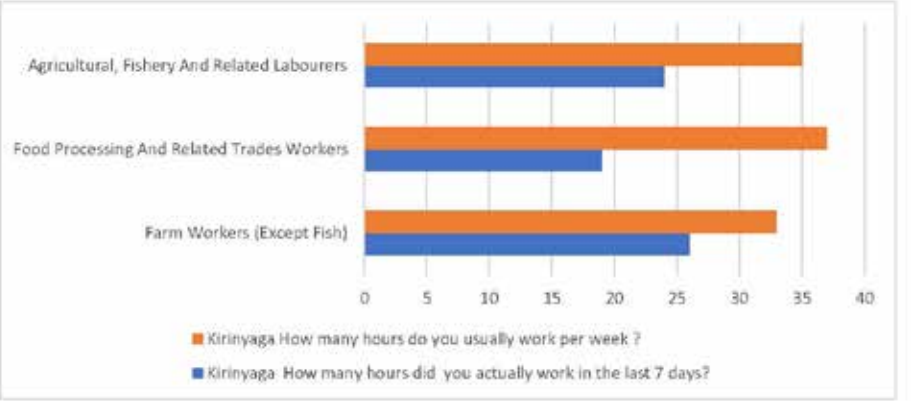


Source: KNBS Survey on Socio Economic Impact of COVID-19 on Households-Wave 2

An assessment of the COVID-19 effects on hours worked by in agriculture related occupations indicates workers in 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 18 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: KNBS Survey on Socio Economic Impact of COVID-19 on Households-Wave 2

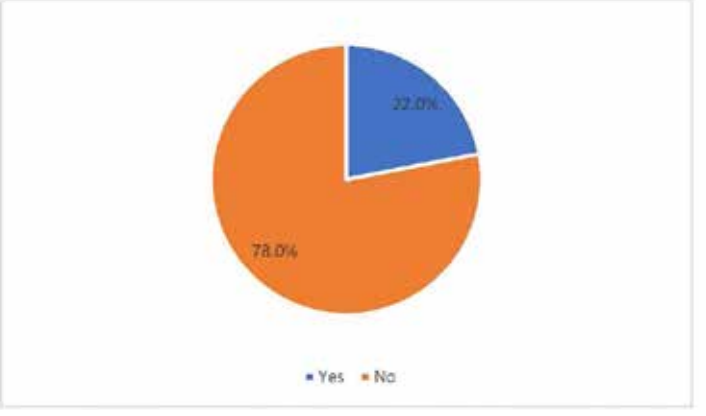
The identified COVID-19 effects on labour force participation are likely to have negative effects on output thereby increasing yield gaps.

ii) Market operations

Successful transformation of smallholder agricultural production in Kirinyaga 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 has been a slow down on trade activities due to the restrictions on movements. From the KNBS conducted between 30th May and 6th June 2020, 22 per cent of the households in Kirinyaga 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

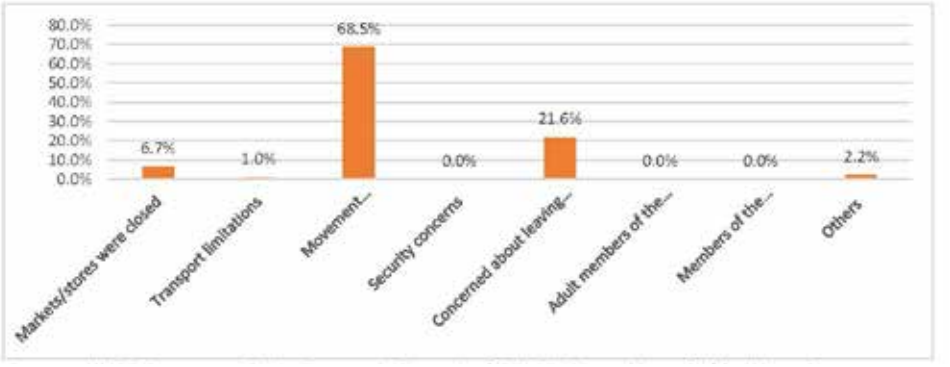
Figure 3.4: Limited access to markets to purchase food items



Source: 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 movement restrictions (68.5%) and concerned about leaving the house due to outbreak (21.6%).

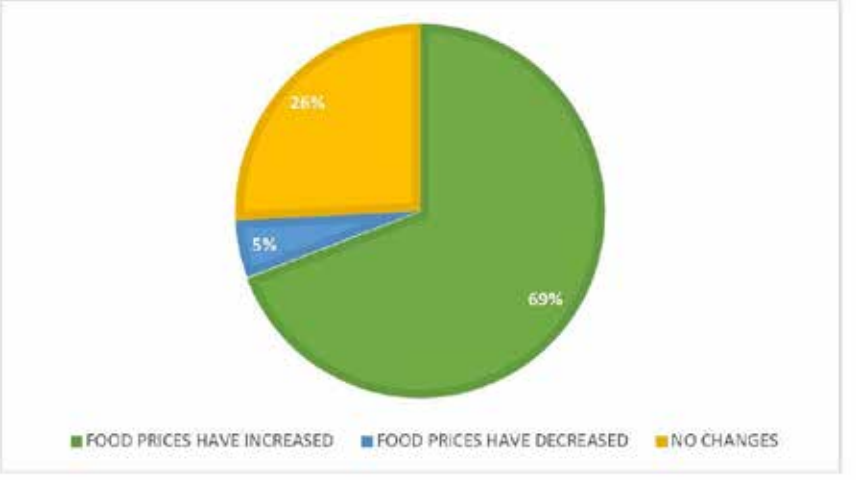
Figure 3.5: Reason for Limited access to markets/ grocery stores



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

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. 69 per cent of households in Kirinyaga County indicated that over the past 2 weeks from the reference period, while 26 per cent indicated that they had not experienced a change in the prices

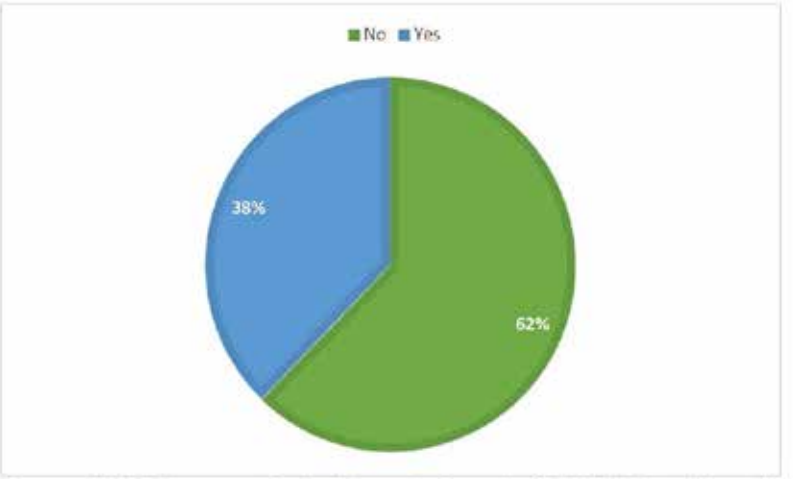
Figure 3.6: Percentage of households experiencing change in food commodity prices



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

On the magnitude of the price shocks, 38 per cent of the households indicated they faced a large rise in food prices in the past two weeks from the reference period.

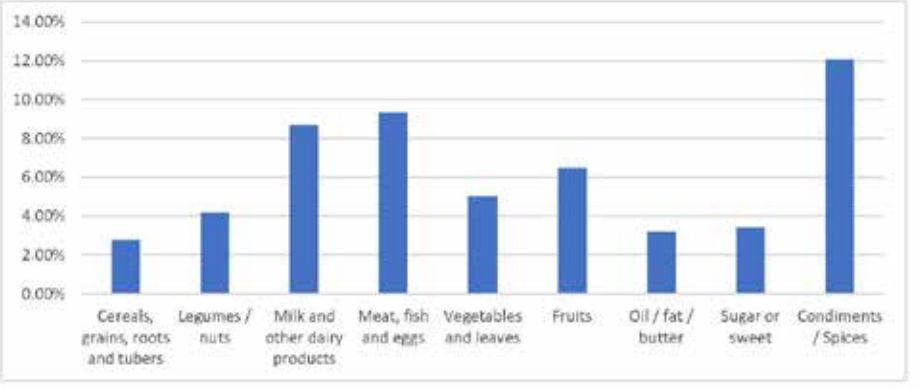
Figure 3.7: Proportion of households facing large food price shocks



Source: 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 of households reporting that the following food items were not readily available in their locality

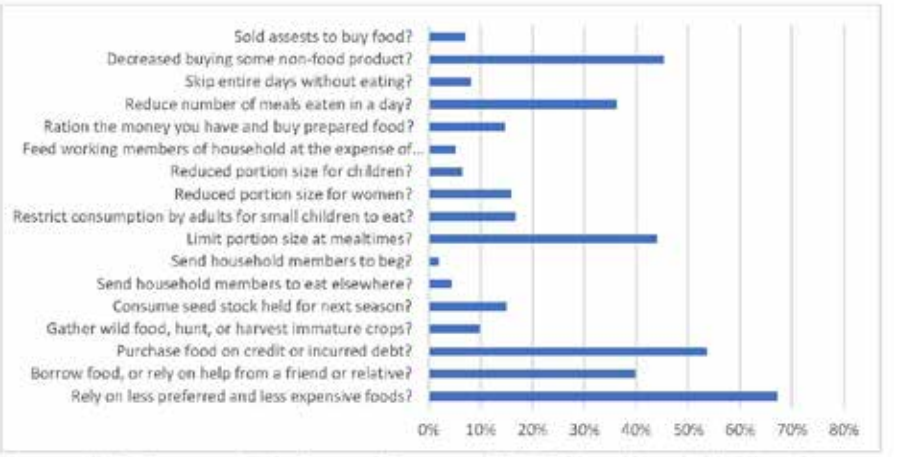


Source: KNBS Survey on Socio Economic Impact of COVID-19 on Households-Wave 2

While access to all food groups were affected as shown in the figure above, a key concern is the effect on nutritious food categories- milk, meat, and fruits-which 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 (67.2 per cent), purchase food on credit or incurred debt (53.6%), decreased buying some non-food products (45.2%), limit portion size at mealtimes (43.9%) and reduce number of meals eaten in a day (36.1%).

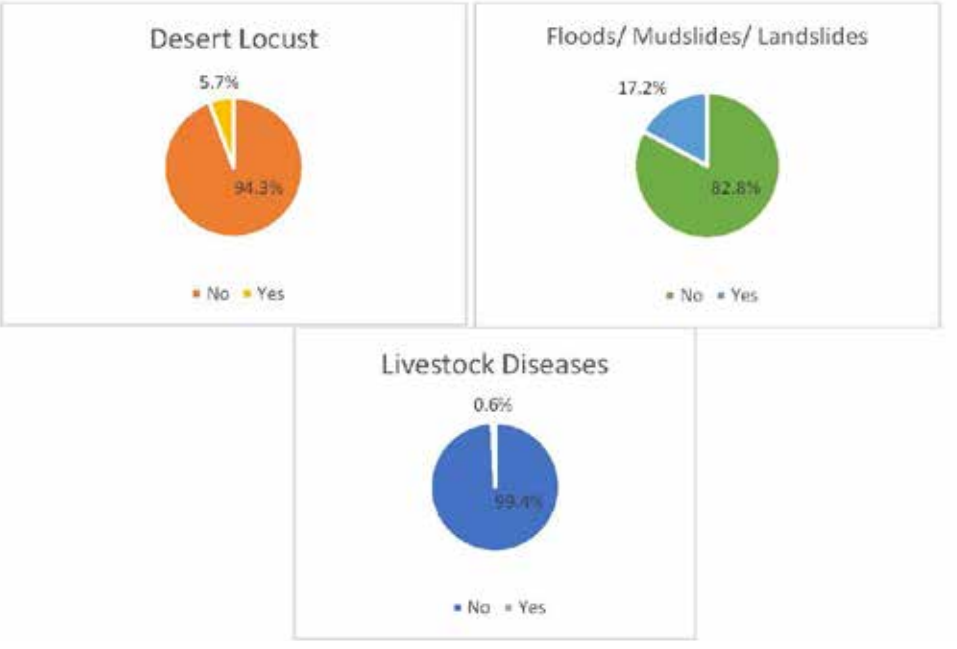
Figure 3.9: Percent of households where the following strategies were adopted for at least one day



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

Additional significant challenges faced by the County during the COVID-19 pandemic period include: Desert locusts (5.7 per cent); Floods/ Mudslides/ Landslides (17.2 per cent); and Livestock Diseases (0.6 per cent).

Figure 3.10: Percentage of households who experienced the below shocks in the past two weeks the KNBS Wave 2 survey



Source: 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:

(i) Farmers had 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.

(ii) Variable and extreme weather events which have increased in frequency and intensity over the years adversely affecting crop and livestock production

(iii) Land fragmentation due to land sub-division which affects productivity as production activities are becoming uneconomically viable.

(iv) Low productivity due to subdivisions and traditional methods of farming, raising concerns of food shortages

(v) Dependence of rain fed agriculture despite frequency in extreme climate conditions, such as drought episodes, delayed and erratic rains among other climate shocks

(vi) Poor access to agricultural finance, to include credit and insurance.

(vii) Low productivity due to poor natural resource management including land

(viii) Poor and inadequate rural road infrastructure affecting marketing activities.

(ix) Low commercialization of farming where majority of farmers practice farming for subsistence purposes and as cultural practices rather than a business.

(x) Low adoption of high value crops that would increase farmers returns

(xi) Pests and diseases

(xii) Low agro-processing and value addition opportunities among small scale farmers

(xiii) Slow uptake of digital platforms to market agricultural produce.

(xiv) Inadequate extension and veterinary services

(xv) Low crops, livestock, and livestock products marketing opportunities necessary for improved incomes

(xvi) 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 Agriculture Sector

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:

- Transport, storage and ICT sectors

- Financial and insurance activities
- 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 middle men.

(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

- Environmental degradation has reduced productive capacity of farms leading to increased risks to food insecurity and reduced farmers income.
- 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 the National Government, NGOs, Research Institutions and the Private sector in enhancing agroprocessing and value addition capacities of the County particularly in milk, coffee, macadamia, tea, avocado and mangoes.

(ii) In addition to agroprocessing, adoption of modern storage and cooling facilities particularly at collection points to minimize spoilage and post-harvest losses.

(iii) Improve small-holder farmers' incomes and livelihoods by linking farmers to product markets beyond the County level, in domestic and external markets at competitive prices.

(iv) Digitize the agri-food sector to enhance: - 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) Increase access to quality and affordable inputs including certified seeds, water, animal feeds, AI services, fertilizers, livestock vaccination and modernized agriculture mechanization such as ploughing services by County tractor hire services.

(vi) Establish programmes for surveillance of disasters such as extreme weather conditions 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) Invest in sustainable irrigation in the County through partnership with development partners. To support expansion of sustainable irrigation, the County will promote development of Irrigation Infrastructure and technologies.

(viii) Build the capacity of farmers in adoption of modern farming technologies and practices and adopt sustainable land management practices to minimize environmental degradation.

(ix) Further, to enhance trade, the County will establish County multisectoral committees to deal with cross-cutting issues such as marketing of agricultural produce that cuts across the trade, ICT and infrastructure sectors that provide crucial market infrastructure such as road infrastructure, lighting and water services.

Strengthen cooperative development with effective stakeholder engagement and implementation of cooperative 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 adequate water sources which include permanent rivers, springs, shallow wells, dams, pans and community boreholes as well as rainwater collection which provides clean and safe water for drinking and for livestock use. The region also receives heavy rainfalls during the months of March to June, however water sources dry up during periods of low rainfall and drought thus affecting household's accessibility to water. The county has no sewerage treatment plant therefore most of the households tend to use pit latrine as well as septic tank.

The management of water is by the county through currently formed water companies. Similarly, the community also manages boreholes community. Water and sanitation coverage remain low in the county with only 17.5 per cent households accessing piped water. This presents an opportunity for the county to increase water coverage to increase its additional revenue collection from water and sanitation through water licensing and billing.

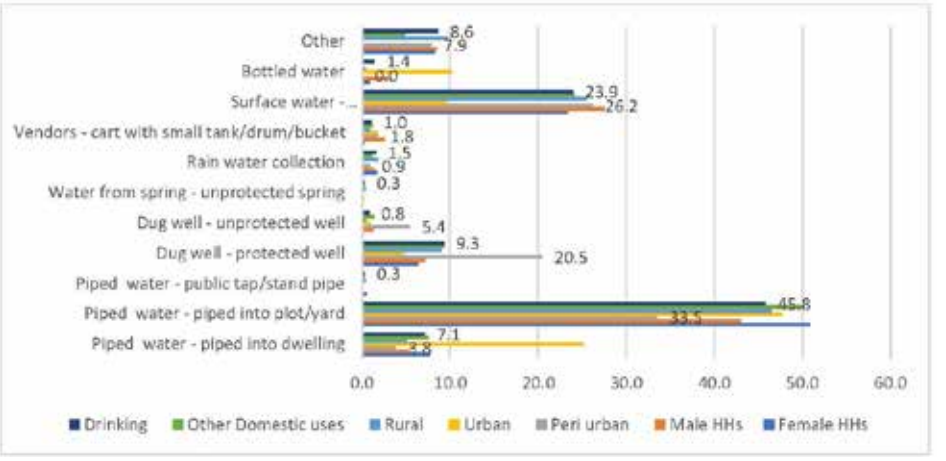
The county has 92 staff out of the expected 161 under water and irrigation in the position of directors, land reclamation officers, geologists, technicians/ designers, surveyors, draughtsman, masons, pump attendants, plumbers, meter readers, charge hand (mechanical), chemical attendants, water supply operators, lab technologists, water supply operators, line patrollers, support staff and drivers

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 (45.8 per cent), surface water (23.9 per cent) and protected dug well (9.3 per cent). Similarly, majority of male (43 per cent) and female (50 per cent) headed households have access to piped water into plot/yard and use of surface water (male headed households 27.5 per cent and female headed households 23.4 per cent). Further, small proportions of households have piped water into dwelling (households 7.1 per cent, male 5.4 per cent and female 7.7 per cent headed households). Additionally, majority of the households don't utilize piped water (public tap/standpipe). See the figure below.

Majority of rural population (46.5%), urban (47.7%) and peri-urban (33.5%) households relies on piped water into plot/yard. Further, surface water is also commonly used by both households (25.5%), urban (9.6%) and peri-urban (26.2%). Further there are also, larger proportions of urban households (33.5%) piped water into dwelling.

Figure 4.1: Access to water by households



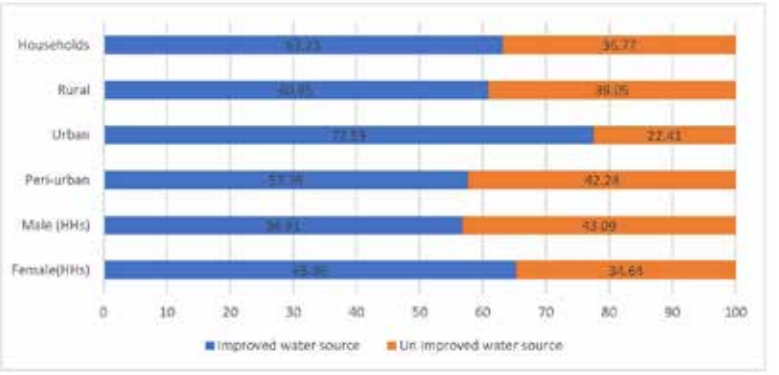
Source: KNBS 2015/2016

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[2] is high in the county among households (63.2%). Additionally, both male and female headed households have low access to improved drinking water source. Both male and female headed households as well as both rural, urban and peri-urban households have 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



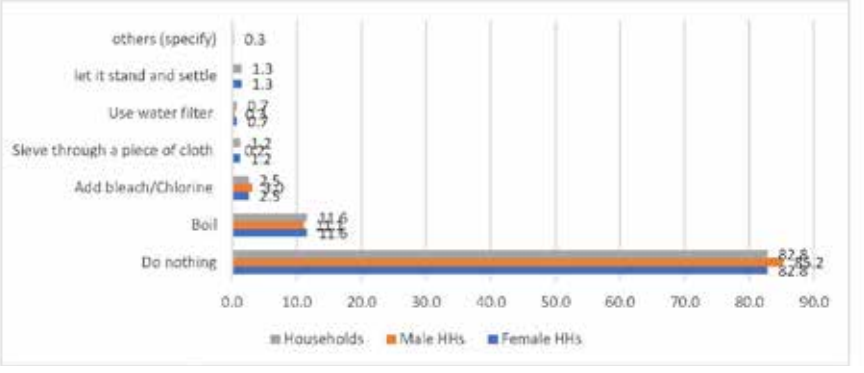
Source: KNBS 2015/2016

Lack of access to safe and clean drinking water may put households at risk of contracting infectious diseases as well as make the households less observance of COVID-19 measures of hand hygiene. One mitigation measure that may be undertaken by the county to increase access to improved water source, include connecting the households with piped water, increase the development of improved sources of water especially in rural areas. Long term measure to support access to water all households is to have both male and female headed households to be part of water management/governance team and in decision making in water management. Other important consideration is to have separate water drinking point for livestock, different from the household water drinking water sources to minimize water contamination and conflict over water resource. Other long-term measures are to avoid agricultural activities along the upstream to minimize water pollution.

Access to water treatment methods

Majority of the households (82.8%), both male (85.2%) and female (82.2%) do nothing to make it safe for drinking. Other methods of water treatment are boiling and chlorination. See the figure below.

Figure 4.3: Access to safe drinking water by households

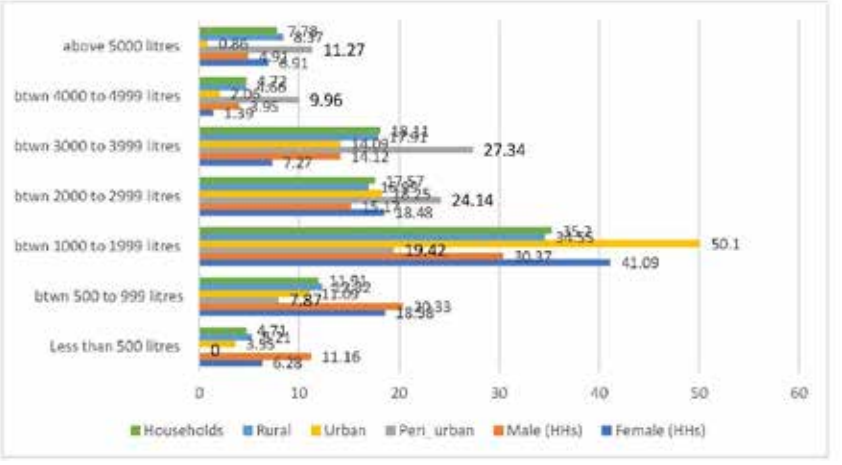


Source: KNBS 2015/2016

Volumes for water used by households in a month

Most households (35.2%), both rural (34.6 per cent) and urban (50.1%) used between 1000 to 1999 litres of water per month. Additionally, most peri-urban (27.3%) households have used between 3,000 to 3,999 litres of water in the past one month. Further majority of female (41.1 per cent) than male (30.4 per cent) headed households have used between 1,000 to 1,999 litres of water in the past month.

Figure 4.4: Volumes of water used by households in a month

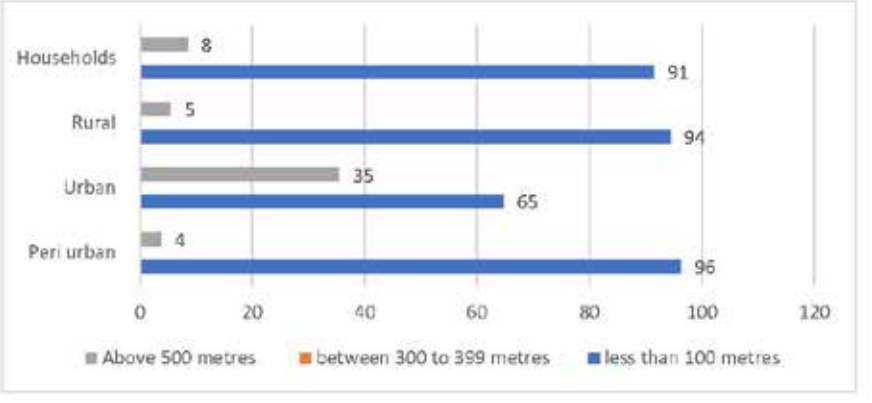


Source: KNBS 2015/2016

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

Majority of the households (91.4%) both rural, urban and peri-urban covers less than 100 metres to water sources, this means they have water within their premises or close to their compounds.

Figure 4.5: Distance covered by households to and from water sources

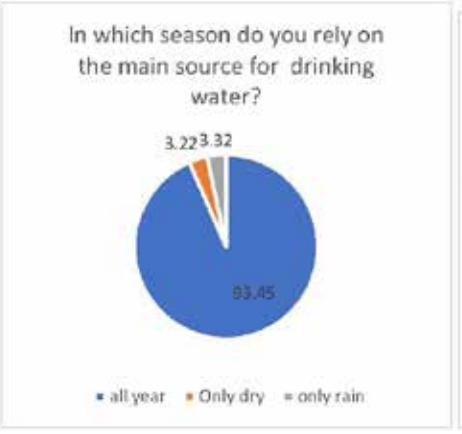


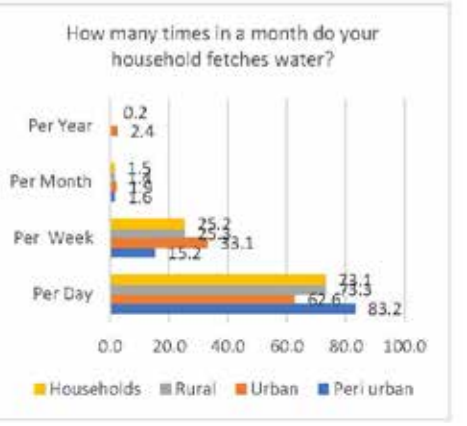
Source: KNBS 2015/2016

Access and reliability of water sources

Most households (93.5%) in the county have to rely 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. Most households (73.1%) go to fetch drinking water from the sources per day, this is more among rural (73.3 per cent), peri-urban (83.2%) compared to urban (62.6%) households. 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 storage facilities that can minimize number of rips to water points in a day, therefore they may be at risk of water shortages during dry months.

Figure 4.6: Access and reliability to water sources by households





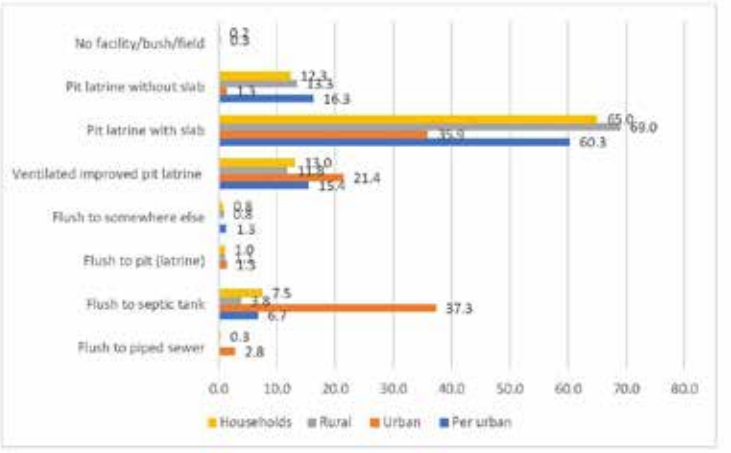
Source: KNBS 2015/2016

Source: KNBS 2015/2016

Access to sanitation

Majority of households (65%), rural (69%), urban (35.9 per cent as well as peri-urban (60.3%) households uses pit latrine with slab. Additionally, a larger proportion of urban (37.3%) households use flush to septic tank, and ventilated improved pit latrine (21.4%). See the figure below.

Figure 4.7: Access to sanitation in Kirinyaga County



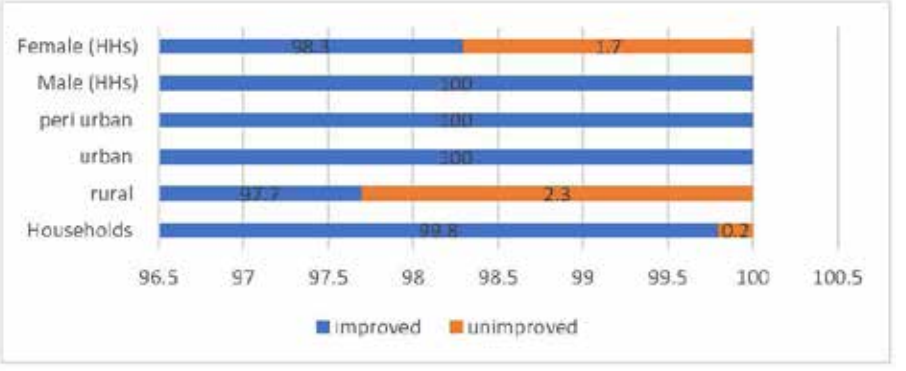
Source: KNBS 2015/2016

Access to improved 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 access to improved sanitation facilities[3]. This is also high among rural, urban and peri-urban households and in male and female headed households.

Figure 4.8: Access to improved and unimproved sanitation by households



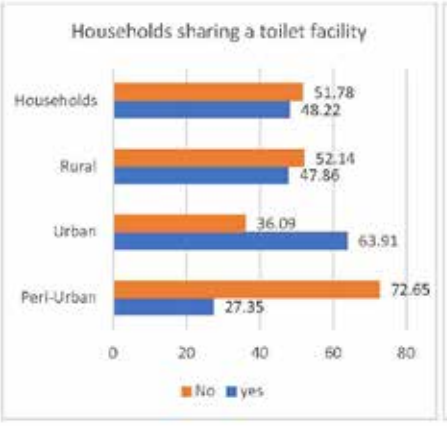
Source: KNBS 2015/2016

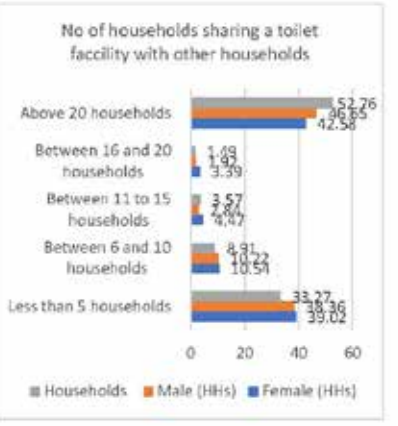
3 Improved sanitation includes; flush to piped sewer, flush to septic tank, flush to pit (latrine), flush to somewhere else, flush to unknown place, ventilated improved pit latrine, pit latrine with slab, pit latrine without slab). Unimproved sanitation includes; composting toilet, bucket toilet, hanging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

Sharing of a toilet facility

Additionally, most households (51.8%), rural (47.9%) and urban (63.9%) than peri urban (27.4%) do share a toilet facility with other households. On the other hand, most households (52.8%) do share a toilet facility with more than 20 other households. This is more among both male (46.7%) and female headed households. Only a small proportion of households do share a toilet facility with less than 5 other households. See the figure below.

Figure 4.9: No. of households sharing a toilet facility





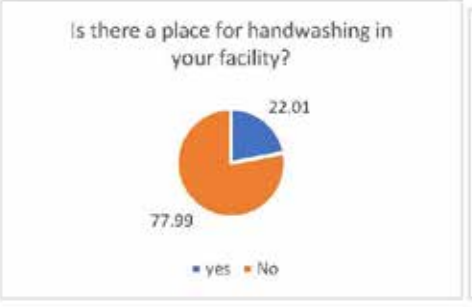
Source: KNBS 2015/2016

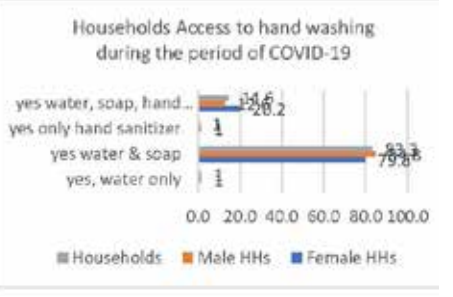
Source: KNBS 2015/2016

Access to WASH during the COVID-19 period

WASH has been identified very important in helping to curb transmission of infectious diseases. Most households (78 per cent) in the county do not have a handwashing facility in their households. Despite this, most of the households (83.3 per cent) have access to WASH (Water and soap) during this period of COVID-19. This is more among male (84.8 per cent) and female (79.8 per cent) headed households. Additionally, 14.6 per cent of the households have access to both water, soap and hand sanitizer. Only a small portion of households have access to water only. See the figure below.

Figure 4.10: Access to wash during the COVID-19 period





Source: KNBS 2015/2016

Source: KNBS 2015/2016

4.2 Opportunities with COVID19 in WASH

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

Among measures put in place to mitigate the effect of COVID-19 under water and sanitation include; a budget had been set aside by the County to fight the pandemic where resources were directed towards food items and water. Other planned measures include provision of water tanks and handwashing facilities to schools to ensure compliance with COVID-19 safety requirements. School infrastructure was boosted to support water and sanitation efforts.

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 provides.

(i) Most households in the county have higher access to improved sources of water both in rural (62.3 per cent), urban (78.5 per cent) and peri-urban (63.2%). Clean and safe water guarantees good health leading to low health expenditures among households.

(ii) There is access to piped water in rural (52.8 per cent), urban (72.9%) and peri urban areas (37.3 per cent). This means high revenue from piped water for the county government. Similarly, it also implies high access to clean and safe 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%).

(iv) Sharing of a toilet facility with other households is common among households, this is more in urban (64%), rural (49%) compared to peri-urban (27.4%).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 was a low access to hand washing facilities among households in rural (20.3%) urban (42.9%) and peri-urban (17.4%) Despite this, access to WASH (water and soap) remains high among households (83.3%) during this period of COVID-19. Only a small proportion of households (14.6%) have access to both water soap and hand sanitizer.

(vi) The most commonly used sources of energy for cooking by households is firewood (71.1%) and followed by liquified (12.1%)

(vii) Furthermore, most households dispose their households solid waste in the compound (76.8%) and followed closely by being burnt in the open 21 per cent.

(viii) Only 3.5 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) Only a small proportion of households (7.08%) in the county have experience droughts or floods in the past year

4.4 Recommendations

To ensure continuous availability of water, the county can undertake the following:

(i) The county to increase water supply in households, institutions and public places to all county residents through; installing water harvesting tanks, drilling of boreholes and construction of additional small dams and pans

(ii) Integrate PPP arrangements to enhance water provision in Kirinyaga County.

(iii) Expand and rehabilitate the existing piped water connection infrastructure to help increase access to water at household level.

(iv) The county to promote water resources conservation and protection

(v) Implement the policy on environment, water and sewerage management

(vi) Expand sewer infrastructure to accommodate more households. There is low access to piped sewer whereby

(vii) Support households in construction of toilet in communities, households and public places to minimize toilet sharing.

(viii) Construct water supply line and sewerage facilities

(ix) Support the implementation of Community Led Total Sanitation (CLTS) initiatives

(x) Create public awareness on the importance of connecting to sewer system

(xi) 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.

(xii) Promote the importance of handwashing and construct WASH facilities to increase access at the household level.

(xiii) Enforce the WASH regulation of having toilets in all public facilities such as supermarkets, hotels and banks etc.

(xiv) Sensitize the public on the importance of WASH

5. Manufacturing, Trade and MSMEs

5.1 Characteristic of the Sector

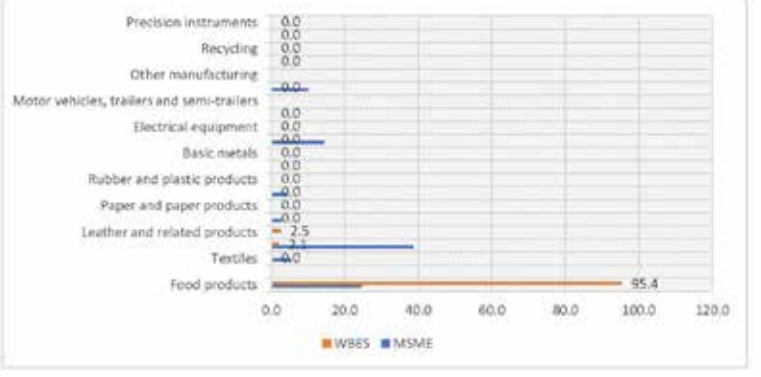
a) Manufacturing sector

Kirinyaga County has 5,168 establishments involved in manufacturing activities which comprise of 15.5 per cent of a total of 33,453 firms (KNBS, 2016). In terms of size 5,052 (97.8 per cent) are micro and 116 (3.6 per cent) are small enterprises. The main drivers of the economy of the county include; agriculture (41 per cent), services (42 per cent), and manufacturing (7 per cent) (GCP, 2019).

Sector of operation

The KNBS, 2016 survey establishes the key sub-sectors that drive manufacturing to include: wearing apparel (38.6%), food products (24.5%), furniture (24%), Fabricated metal products, except machinery and equipment (14.4 per cent), furniture (9.9%), and textiles (5.4 per cent). 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 (95.4%), leather and related products (2.5 per cent), and wearing apparel (2.1 per cent). These are sub-sectors that are considered essential in dealing with COVID-19 and are likely to experience increased activity with focus on food production, production of Personal Protective Equipment (PPEs) and hospital beds. The key products useful in value addition and driving manufacturing include; rice, beans, maize, and Irish potatoes, and horticultural crops. There are sixteen (16) large industries/factories driving manufacturing sector in the county. They are primarily involved in agricultural-based products such as tea, coffee, maize and rice.

Figure 5.1: Sector of operation in manufacturing

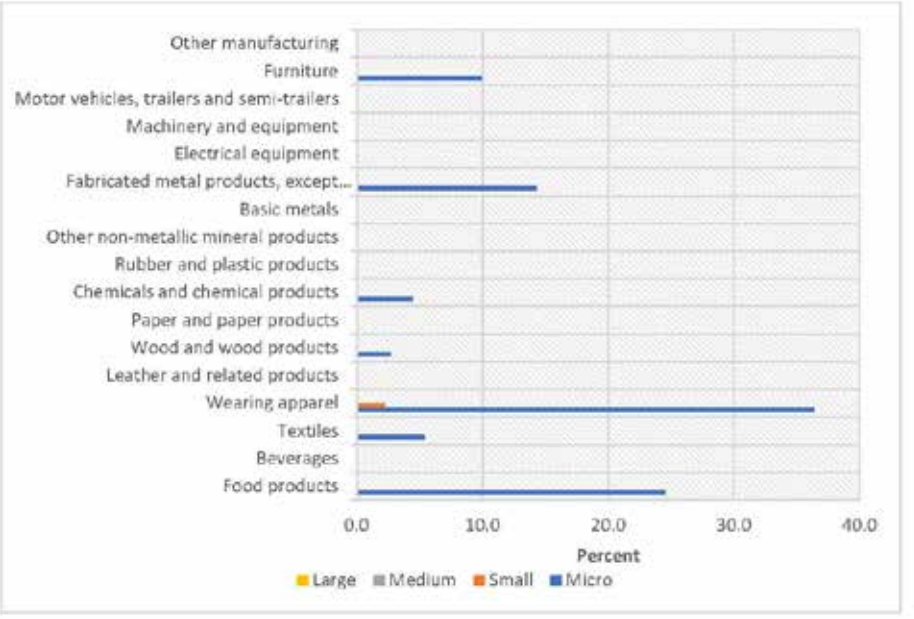


Source: KNBS, 2016 and WBES, 2019

Sector of operation by size

Majority of the establishments in Kirinyaga County are micro in nature and operate in the wearing apparel (36.4%), fabricated metal products except machinery and equipment (14.4%), and furniture (9.9%) (Figure 5.2). Small sized establishments operate mainly wearing apparel (2.2%).

Figure 5.2: Manufacturing firms by sector and size

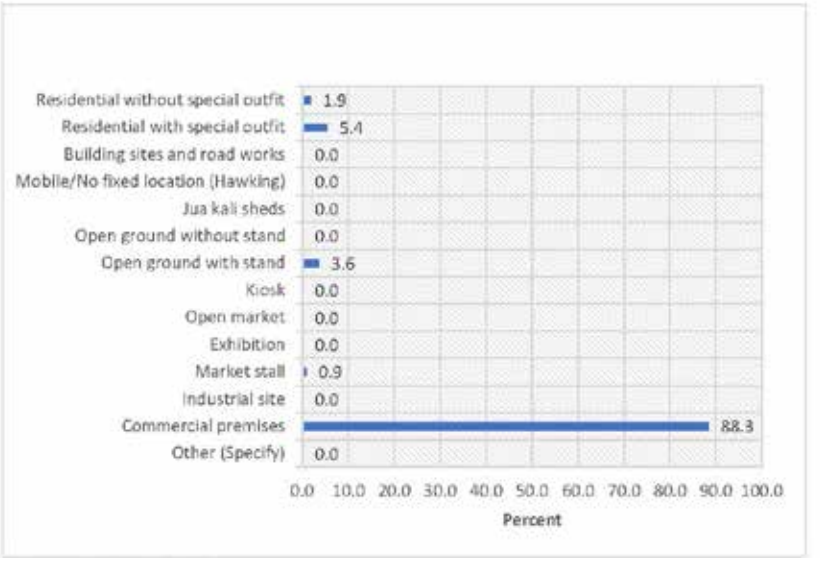


Source: KNBS (2016)

Location of manufacturing firms by type of premises

Manufacturing firms in Kirinyaga County are mainly located in commercial premises (88.3%), residential with special outfit (5.4%), and open ground with stand (3.6%) (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 Kirinyaga County are dominantly owned by male (58.3%), with females comprising 22.2 per cent while 19.5 per cent are jointly owned. In terms of micro-sized firms, 59.7 per cent are male owned, 20.4 per cent female owned and 19.9 per cent jointly owned. Small sized firms are all female-owned (100%) (Table 5.1).

Table 5.1: Distribution of Manufacturing firms by gender and size - N (%)

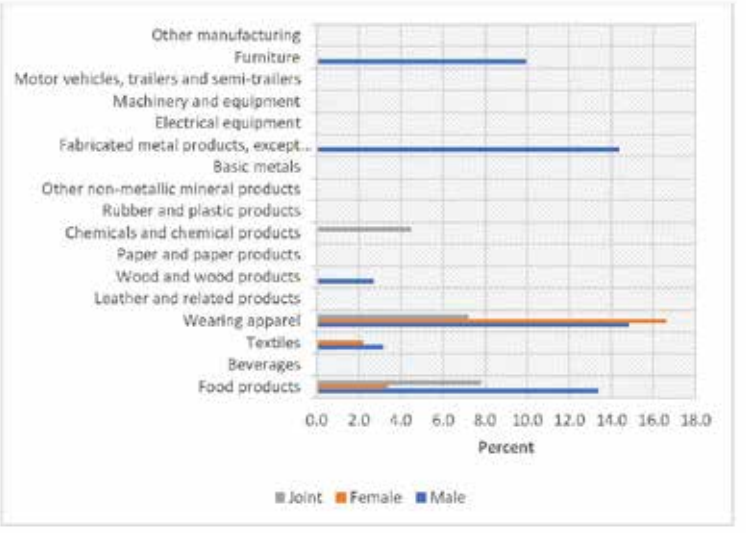
Gender	A11	Micro	Small
Male	3,014 (58.3)	3,014 (59.7)	0 (0)
Female	1,147 (22.2)	1,031 (20.4)	116 (100)
Joint	1,007 (19.5)	1,007 (19.9)	0 (0)
Total	5,168 (100)	5,052 (100)	116 (100)

Source: KNBS (2016)

Distribution of Manufacturing firms by gender and sector

Majority of the sub-sectors in manufacturing are male dominated including wearing apparel (14.8%), fabricated metal products except machinery and equipment (14.4%), food products (13.4%), and furniture (9.9%). Females are mostly found in the wearing apparel (16.6%), food products (3.3%), and textiles (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 (72.2%) than women (27.8%). Most men are found in the micro-sized enterprises (64%) while 8.2 per cent are in small-sized establishments. Majority of the women are also predominantly in the micro enterprises as well (23.2%). (Table 5.2).

Table 5.2: Employment by gender and size for manufacturing firms

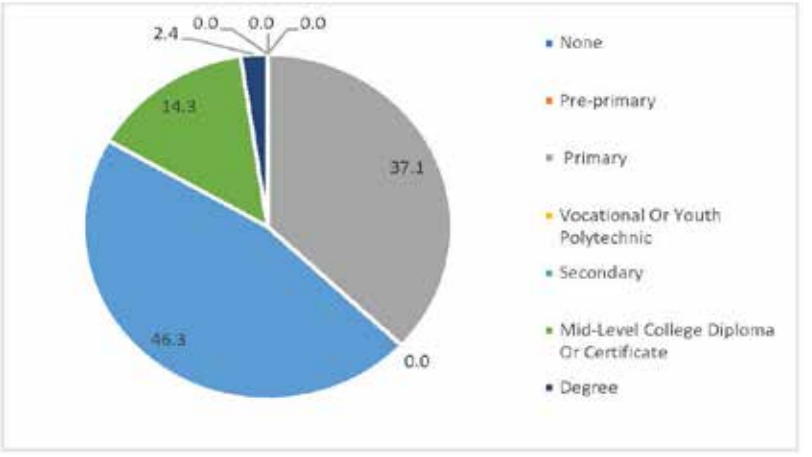
Number of employees	Micro	Small	Total
Male	9,164 (64)	1,045 (8.2)	9,164 (72.2)
Female	2,944 (23.2)	580 (4.6)	3,524 (27.8)
Total	11,063 (87.2)	1,625 (12.8)	12,688 (100)

Source: KNBS (2016)

Education levels of Manufacturing firm owners

Education levels of manufacturing owners are highlighted in figure 5.5 as follows: secondary (46.3%), primary (37.1%), and mid-level college diploma or certificate (14.3%) (Figure 5.5).

Figure 5.5: Employment by gender and size for manufacturing firms

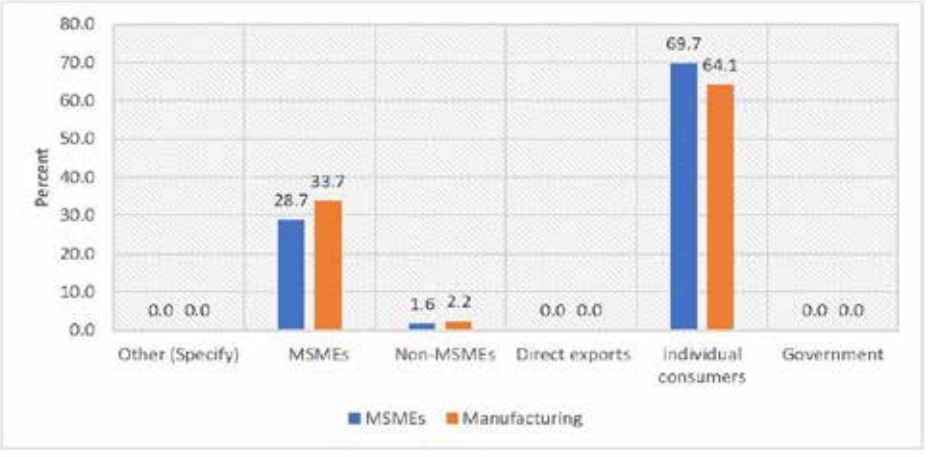


Source: KNBS (2016)

Source of markets

Majority of manufacturing establishments and MSMEs in general rely on individual consumers for markets at 64.1 per cent and 69.7 per cent, respectively (Figure 5.6).

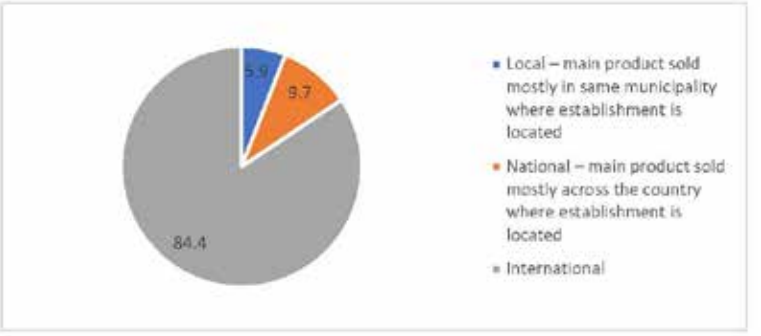
Figure 5.6: Source of markets



Source: KNBS (2016)

Additionally, MSMEs, and non-MSMEs are also important sources of markets for these sectors. However, according to the MSME survey, manufacturing firms and MSMEs are not involved in direct exports. This contrasts with the WBES 2019 which shows that 84.4 per cent of manufacturing firms source for markets internationally (Figure 5.7).

Figure 5.7: Source of markets

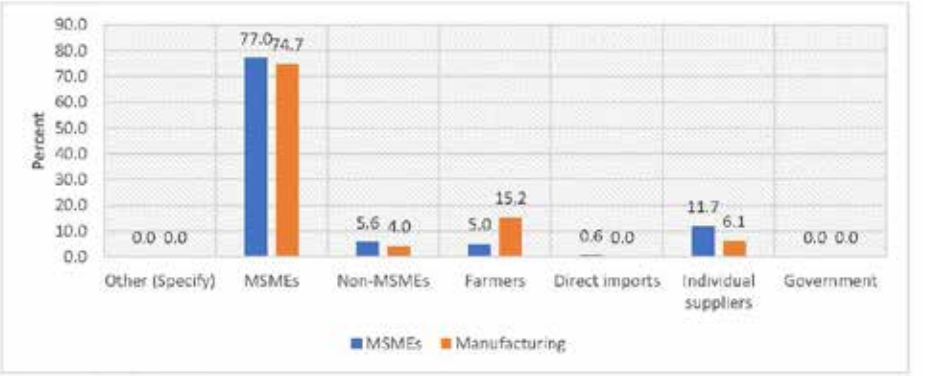


Source: WBES (2019)

Source of material inputs

Overall, manufacturing establishments and MSMEs source for material inputs from amongst MSMEs at 74.7 per cent and 77 per cent respectively (figure 5.8). Individual suppliers as well as non-MSMEs and farmers are also important to the supply of inputs. MSMEs also source for inputs from direct imports (0.6 per cent). Therefore, shocks in the external source markets have adverse implications to MSME operations in Kirinyaga County.

Figure 5.8: Source of material inputs



Source: KNBS, 2016.

Level of innovation by firms in Manufacturing

Manufacturing establishments in Kirinyaga County were involved in both product, process and market innovations. More product innovations are seen under the micro category at 9.6 per cent, process (9.4%) and market (3.8%). Fewer innovations are observed in the small category at a rate of 2.2 per cent for product, process and market respectively (Table 5.3).

Table 5.3: Level of innovation by firms in manufacturing

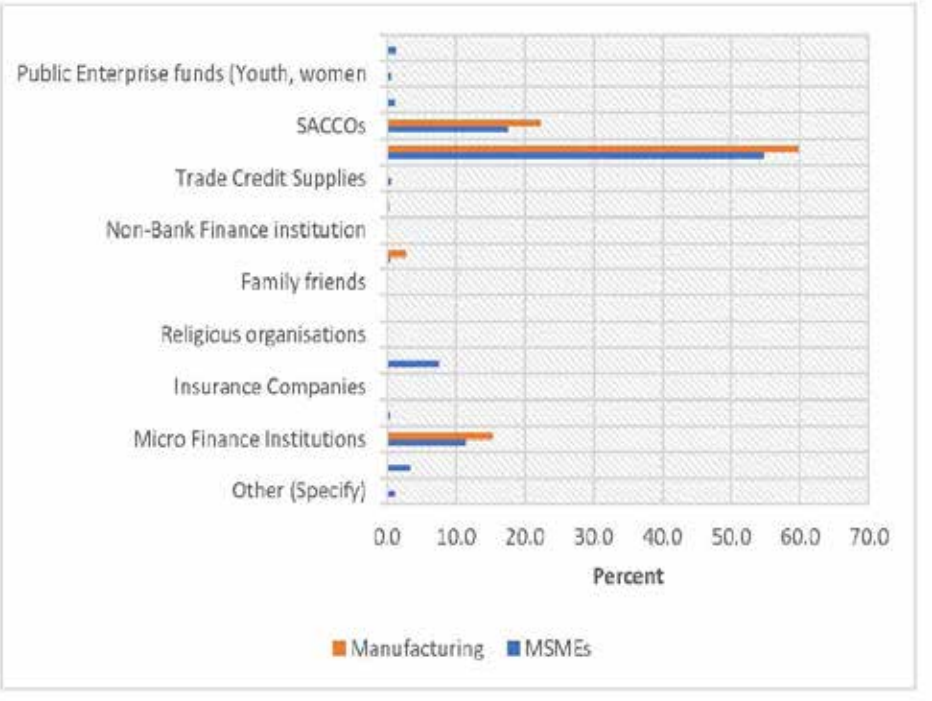
Type of innovation	Micro			Small		Total
	Don't know	No	Yes	No	Yes	
Product	0 (0)	4,554 (88.1)	498 (9.6)	0 (0)	116 (2.2)	5,168 (100)
Process	0 (0)	4,565 (88.3)	487 (9.4)	0 (0)	116 (2.2)	5,168 (100)
Market	0 (0)	4,856 (94)	197 (3.8)	0 (0)	116 (2.2)	5,168 (100)

Source: KNBS, 2016.

Access to credit for Manufacturing and MSMEs firms

According to the MSME 2016 survey, 66.9 per cent of MSMEs and 67.7 per cent of those in manufacturing applied for credit. Manufacturing firms get their credit mainly from commercial banks (59.8%), SACCOs (22.2%), MFIs (15.3%), among others. MSMEs mainly get their financing from commercial banks (54.6%), SACCOs (17.5%), MFIs (11.5%), and self help groups (7.5%) (Figure 5.9).

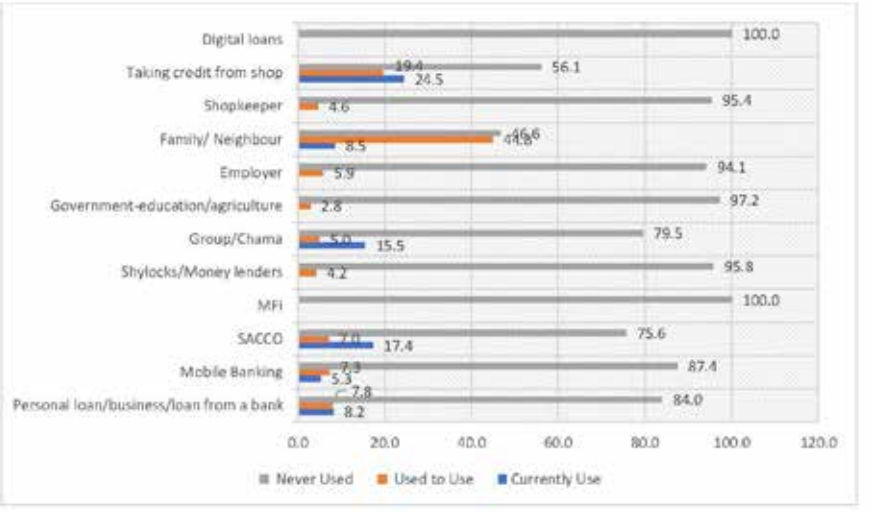
Figure 5.9: Sources of finance



Source: KNBS (2016)

Recent evidence from FinAcess 2019 provides further insights on sources of credit for businesses in Kirinyaga County. Businesses commonly obtain credit from the conventional sources such as shops (24.5%), SACCOs (17.4%), groups/chama (15.5%), family/neighbour (8.5%), and personal/business loans from banks (8.2%). Emerging sources of credit for businesses in Kirinyaga county include mobile money (5.3%) (Figure 5.10).

Figure 5.10: Recent sources of credit

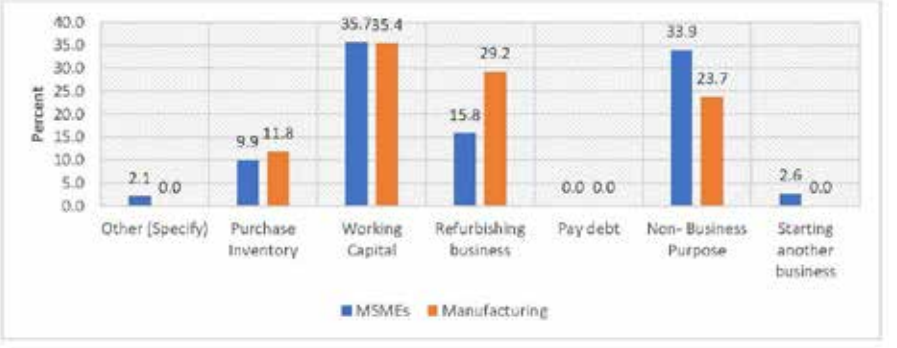


Source: FinAcess (2019)

Purpose of credit

Manufacturing firms in Kirinyaga County require credit for: working capital (35.4%), refurbishing business (29.2%), non-business purposes (23.7%), among others. MSMEs require credit for: working capital (35.7%), non-business purposes (33.9%), refurbishing business (15.8%), among others (Figure 5.11).

Figure 5.11: Main purpose of credit

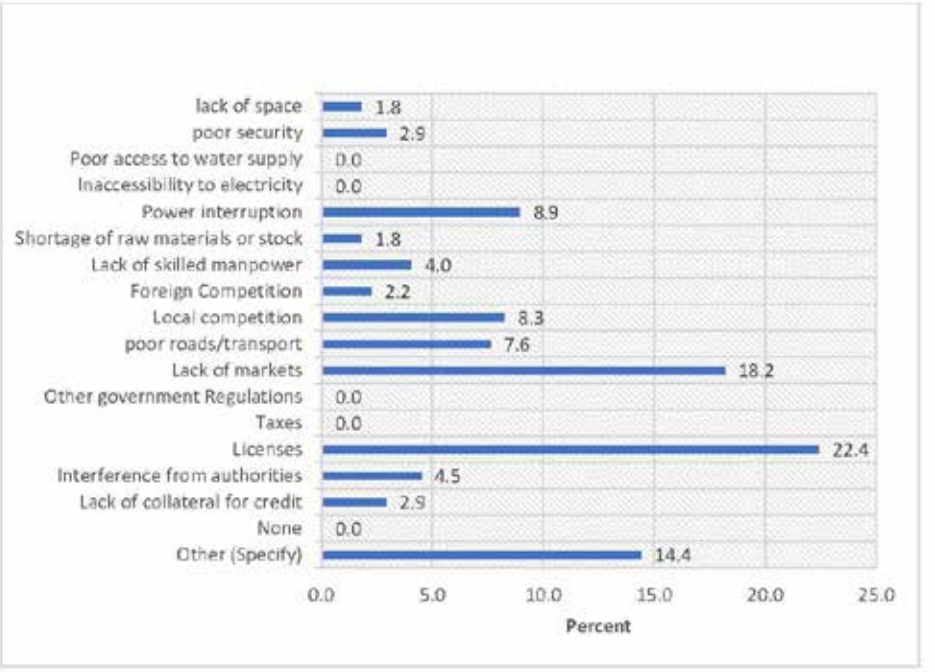


Source: KNBS (2016)

Constraints faced by manufacturing firms

The key constraints faced by manufacturing firms include: licenses (22.4%), lack of markets (18.2%), power interruption (8.9%), local competition (8.3%), poor roads/transport (7.6%) (Figure 5.12)

Figure 5.12: Constraints faced by manufacturing firms



Source: KNBS (2016)

Industrial Parks/ Jua Kali Sheds

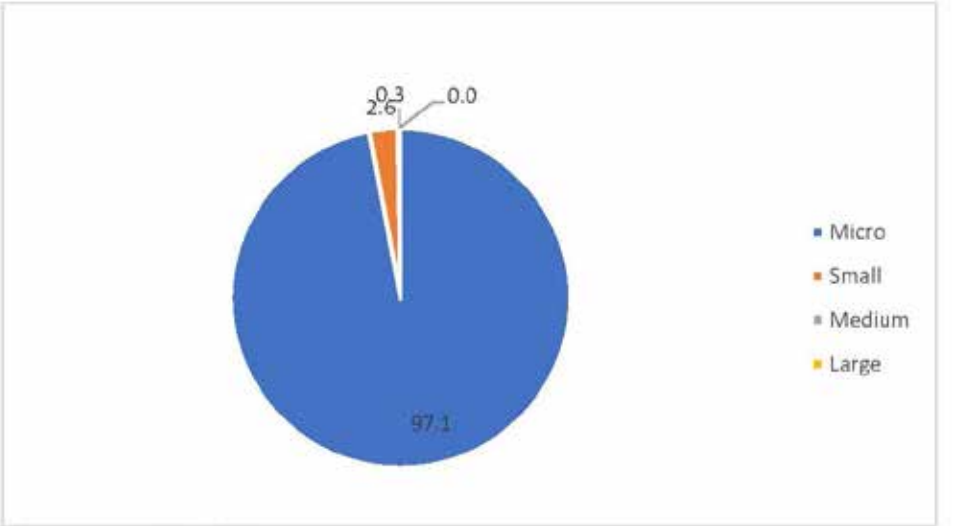
There are no industrial parks in Kirinyaga County.

b) Micro Small and Medium Enterprises (MSMEs)

Kirinyaga County has 33,453 establishments[4] with 32,468 (97.1%) being micro, 886 (2.6%) are small and 99 (0.3%) are medium enterprises (KNBS, 2016) (Figure 5.13).

[4] After applying weights

Figure 5.13: Distribution of MSMEs by size

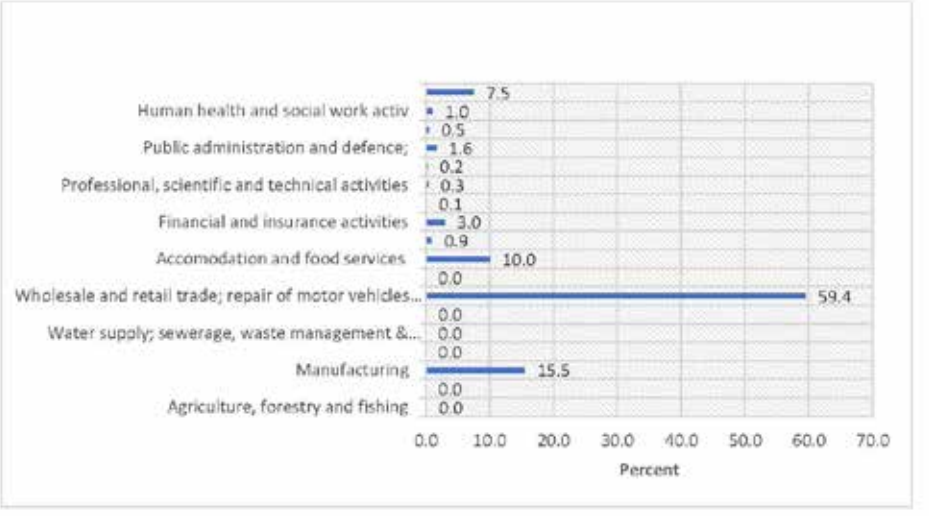


Source: KNBS (2016)

Sector of operation by MSMEs

Majority of MSMEs in Kirinyaga County operate in the wholesale and retail trade, repair of motor vehicles and motorcycles (59.4%); manufacturing (15.5%); accommodation and food services (10%); and arts, entertainment and recreation (7.5%) (Figure 5.14). Ideally, these are the sectors that have been mostly affected by the pandemic and need to be prioritized during re-engineering and recovery.

Figure 5.14: Sector of operation by MSMEs

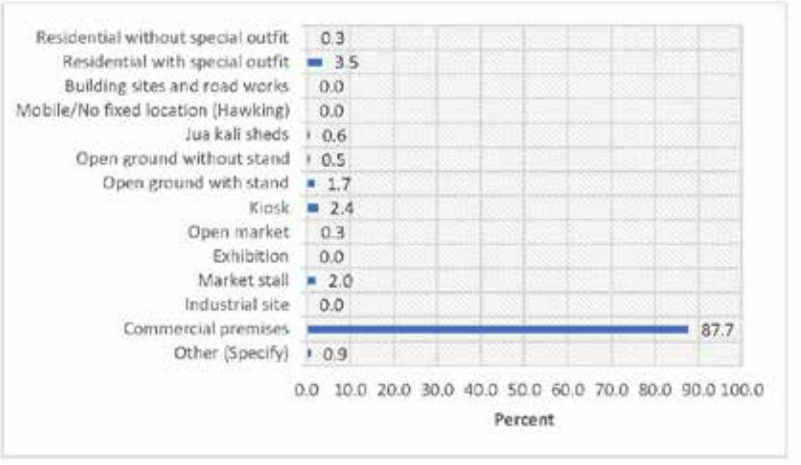


Source: KNBS (2016)

Location of the businesses by type of premises

Location of business premises in Kirinyaga County is highlighted in Figure 5.15 as follows: commercial premises (87.7%), residential with special outfit (3.5%), kiosk (2.4%), and market stall (2%). According to the May 2020 KNBS COVID-19 survey, 94.8 per cent of the non-farm businesses attributed non-payment of household rental obligations to reduced incomes/earnings while 5.2 per cent attributed the same to delayed incomes/earnings. For those involved in farm businesses, 66.7 per cent attributed the same to reduced incomes/ earnings while 33.3 per cent were affected by delayed 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 Kirinyaga County by gender: 46.8 per cent were male owned, 31 per cent were female owned, while 22.2 per cent are jointly owned (male/female). For Micro establishments, 47.2 per cent were male owned, 30.8 per cent were female owned, while 22 per cent are jointly owned. Female owners dominate ownership among small sized establishments at 42 per cent, males own 36.6 per cent, and 21.4 per cent are jointly owned. Considering medium sized establishments, ownership is fully jointly controlled at 100 per cent.

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

Gender	A11	Micro	Small	Medium
Male	15,657 (46.8)	15,333 (47.2)	324 (36.6)	0 (0)
Female	10,358 (31)	9,986 (30.8)	372 (42)	0 (0)
Joint	7,437 (22.2)	7,149 (22)	189 (21.4)	99 (100)
Total	33,453 (100)	32,468 (100)	886 (100)	99 (100)

Source: KNBS, 2016

In terms of employment, the micro sized establishments employ more people (76.5%) compared to small (15.7%), and medium (7.8%) (Table 5.5). Micro firms employ 42.3 per cent male and 34.1 per cent female and small sized employ 10.4 per cent male and 3.6 per cent female. Equally, more men are employed among medium establishments at 4.2 per cent while females include 3.6 per cent, respectively. Overall, more men (56.9%) are employed by MSMEs in Kirinyaga County than women (43.1%).

Table 5.5: Employment by gender and size - N (%)

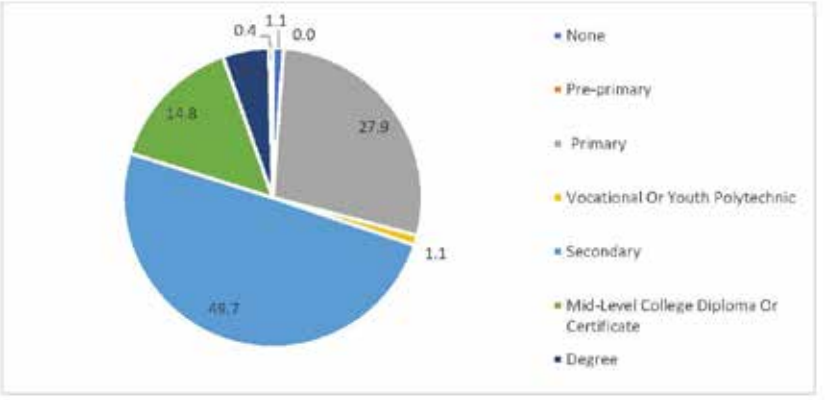
Gender	Micro	Small	Medium	Total
Male	34,148 (42.3)	8,356 (10.4)	3,423 (4.2)	45,927 (56.9)
Female	27,552 (34.1)	4,330 (3.6)	2,877 (3.6)	34,760 (43.1)
Total	61,700 (76.5)	12,687 (15.7)	6,300 (7.8)	80,687 (100)

Source: KNBS (2016)

Education levels of MSME owners

Education levels of MSME owners in the County are highlighted (Figure 5.16) as: secondary (49.7%), primary (27.9%), mid-level college diploma or certificate (14.8%), degree (5%) education (Figure 5.16).

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 Kirinyaga County by MSMEs according to size. Generally, there were low levels of innovation across MSMEs with 8.9 per cent involved in product, 3.2 per cent for process, and 3.5 per cent in market innovation for micro-sized enterprises. Regarding small-sized enterprises, 2.3 per cent engaged in product, 2.3 per cent process and 2.3 per cent market innovation. With regards to medium sized enterprises, none were involved in any form of innovation.

Table 5.6: Level of innovation by MSMEs

Type of Innovation	Micro				Small				Medium		Total
	Refused to answer	Don't know	No	Yes	Refused to answer	Don't know	No	Yes	No	Yes	
Product	0 (0)	0 (0)	29,475 (88.1)	2,994 (8.9)	0 (0)	0 (0)	769 (2.3)	116 (0.3)	99 (0.3)	0 (0)	33,453 (100)
Process	0 (0)	0 (0)	31,386 (93.8)	1,082 (3.2)	0 (0)	0 (0)	769 (2.3)	116 (0.3)	99 (0.3)	0 (0)	33,453 (100)
Market	116 (0.3)	0 (0)	31,185 (93.2)	1,167 (3.5)	0 (0)	0 (0)	769 (2.3)	116 (0.3)	99 (0.3)	0 (0)	33,453 (100)

Source: KNBS (2016)

E-commerce

Participation in e-commerce by households in Kirinyaga County is below the national average. About 2.8 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 (3.3%) than women (2.4%). With introduction of stay-at-home protocols due to COVID-19 online trade has been expected to thrive, little impact will be felt in Kirinyaga County since fewer households participate in the same.

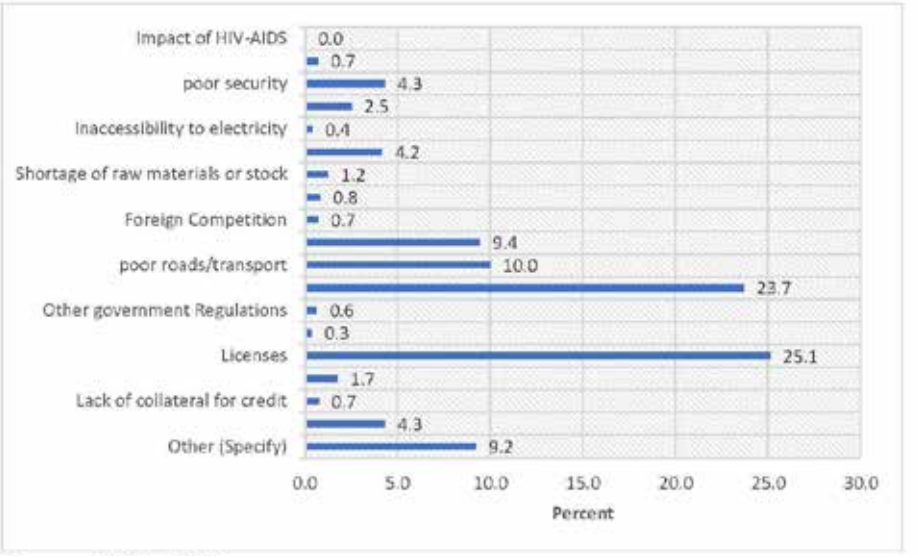
Turnover tax

Only 7.6 per cent of MSMEs in Kirinyaga County (2,531) 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

Main constraints faced by MSMEs in Kirinyaga County are: licenses (25.1%), lack of markets (23.7%), poor roads/transport (10%), local competition (9.4%), poor security (4.3%), and power interruption (4.2%) (Figure 5.17).

Figure 5.17: Main constraints faced by MSMEs



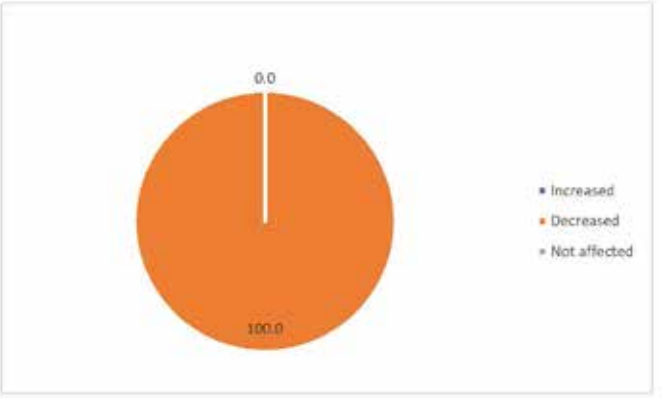
Source: KNBS (2016)

A study on County Business Environment for MSEs (CBEM) identified other constraints faced by MSMEs in Kirinyaga County as: financial and technical capacity, market environment, and worksite and related infrastructure (KIPPRA 2019). 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 Kirinyaga County. 100 per cent of the respondents report a decrease in their business activities due to the pandemic. Equally 100 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 effect 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

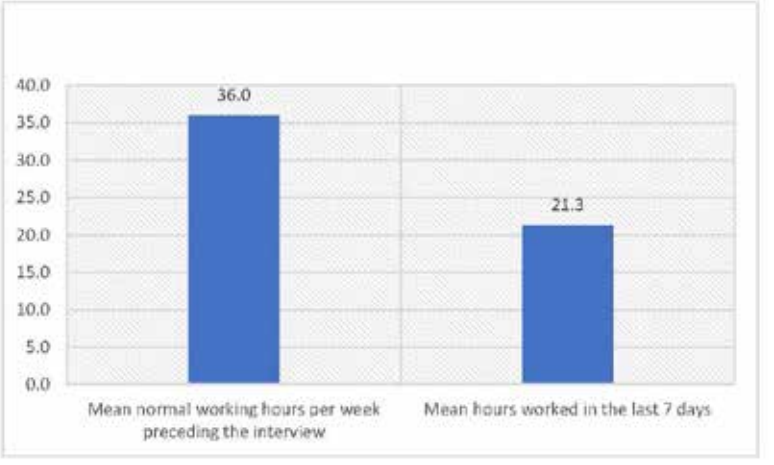


Source: KNBS, COVID_19 Survey 2020

Labour dynamics

During the period considered in KNBS, COVID-19 Survey 2020, respondents reported a decrease of 4.7 hours in the mean working hours for household non-farm and farm businesses in Kirinyaga 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 forms 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 8.8 hours in usual and actual hours worked while accommodation and food services lost 10.5 hours in a week. This is an indicator of the adverse effects on the service sector of Kirinyaga County due to the pandemic implying loss of productivity, output and employment. Equally, the manufacturing sector lost 6 hours.

Key Messages:

(a) The key sectors that drive the economy of Kirinyaga 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 Kirinyaga County include: wearing apparel, food products, furniture, Fabricated metal products except machinery and equipment, furniture, and textiles. These are sub-sectors that are considered essential in dealing with COVID-19 and are likely to experience increased activity with focus on food production, production of Personal Protective Equipment (PPEs) and hospital beds.

(c) The key constraints faced by manufacturing firms include: licenses, lack of markets, power interruption, local competition, and poor roads/transport.

(d) The main constraints faced by MSMEs in Kirinyaga County are: licenses, lack of markets, poor roads/transport, local competition, poor security, and power interruption.

(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 presents 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 subsidies 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 Industrial Recovery and Growth

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

(i) Agro-processing for value addition with important areas of focus include rice production and processing, maize production and processing, and dairy production, beans, maize, and irish potatoes, horticultural crops and textiles.

(ii) The textile and wearing apparel sectors can be enhanced to provide PPEs for use within the County and potentially for the export market.

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) There has been an increased wave of innovations during the pandemic.

(ii) The county was 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.

(iii) There was 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.

(iv) Businesses were 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 Kirinyaga County's planned activities due to reduced projected revenues.

(ii) The need to identify and promote specific and emerging values chains as a result of COVID-19, and which Kirinyaga 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) Consider an emergency rescue package for businesses and traders hard-hit by the effects of COVID-19 in the short run. The emergency Fund, supported by development partners and other stakeholders, can be used to identify and support the most vulnerable businesses and entrepreneurs affected by COVID-19. Related, the County will inject some stimulus to cushion the businesses and traders through affordable credit; waiver of some County taxes, cess, and other charges.

(ii) Spur innovation and promote manufacturing and industry development and generation of jobs for the youth.

(iii) Establishments in the county will adopt to the new pandemic guidelines including rearranging floor plans to allow for social distancing.

(iv) Undertake value addition activities in tomatoes and fruit processing in the County in collaboration with KIRDI.

(vi) Create forward and backward linkages for MSMEs involved in manufacturing for growth.

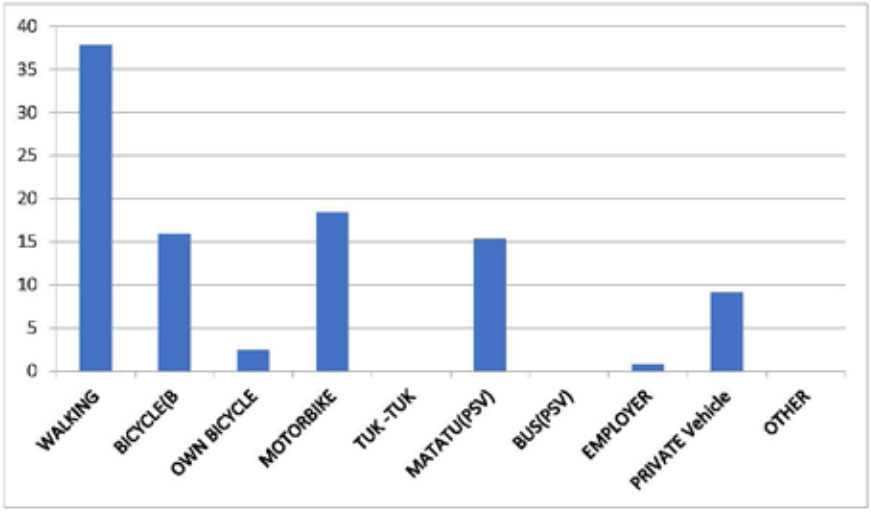
6. Infrastructure

6.1 Transport Sector

6.1.1 Characteristics of the Sector

Majority of households own a bicycle (21.1%) and motorcycle (14.6%). Car ownership is at 6.0 per cent (KNBS, 2019). The main means of transport used in the county is walking at 37.86 per cent followed by motorbike 18.41 per cent, bicycle (boda boda) 15.94 per cent, PSV matatus at 15.32 per cent, and private car at 9.16 per cent, figure 6.1, while 84.4 per cent of the population had not changed the main means of transport (KNBS, 2020b). On average, residents travel 2.42 kilometers to their workplace at an average cost of Ksh 80.06. For the commute to school, residents spend on average Ksh 706.33 (KIHBS, 2015/16).

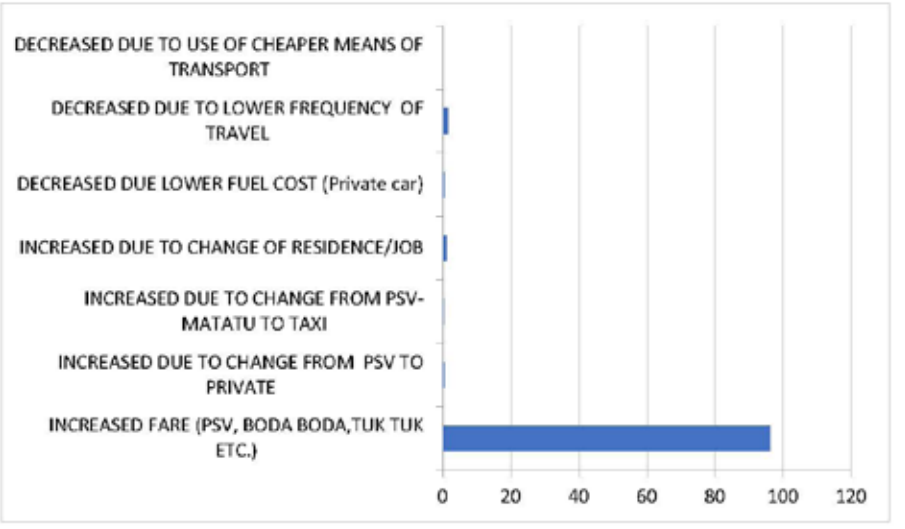
Figure 6.1: Main means of transport



Source: KNBS COVID-19 Impact Survey 2020

The KNBS COVID-19 Impact Survey 2020 revealed that 60.49 per cent of the population reported a change in the cost of travel/commute, figure 6.2. The expenditure on transport increased by 33.85 per cent from Ksh 65 before February 2020 to Ksh 87 in May 2020 for a one-way trip. The main change (96.3%) in transport cost was attributed to increased fares for PSV, boda boda and tuk tuk.

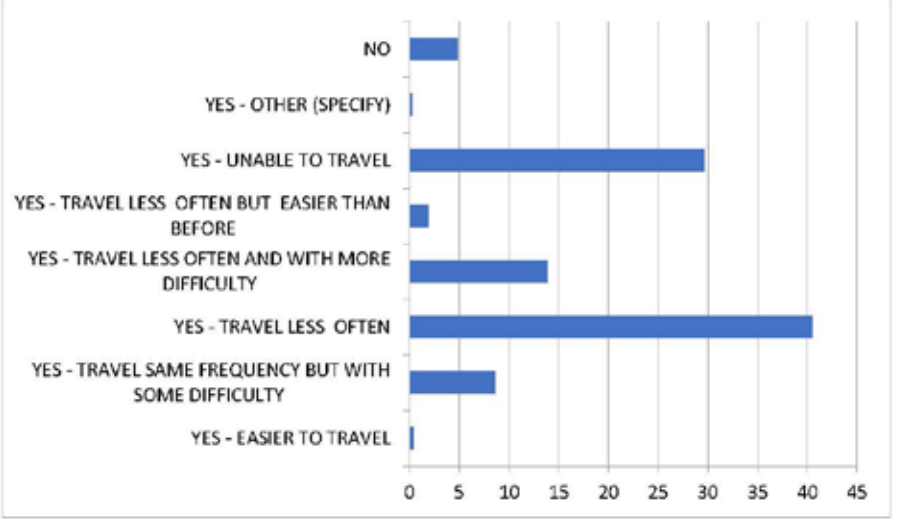
Figure 6.2: How has the cost of your MAIN travel changed



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

Residents had changed their travel patterns with 40.52 per cent of the population traveling less often, while 8.59 per cent travelled with the same frequency but with some difficulty, and 29.68 per cent were unable to travel. However, 4.84 per cent of the population did not change their travel pattern, Figure 6.3.

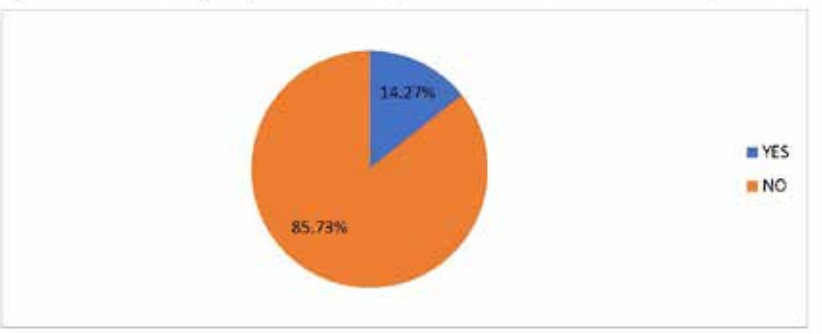
Figure 6.3: Change in travel patterns



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

The pandemic has affected delivery of goods and services for 14.27 per cent of households.

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



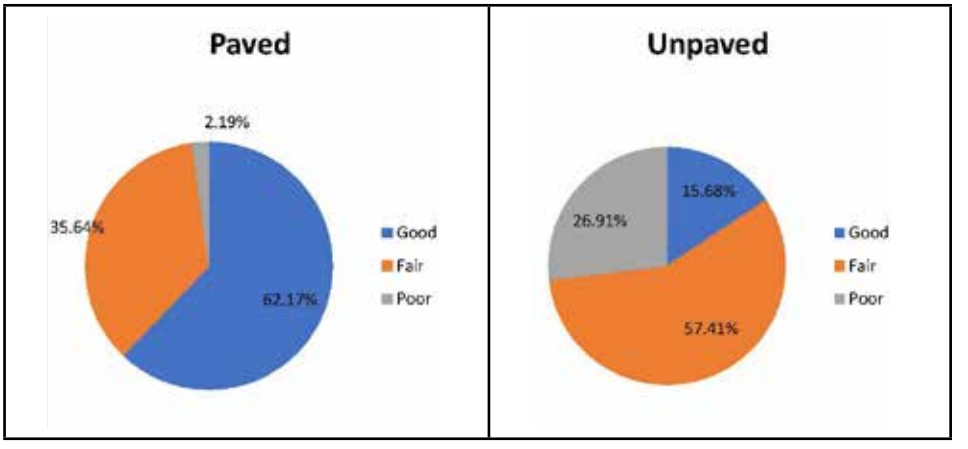
Source: KNBS COVID-19 Impact Survey 2020-wave 2

The County was allocated a total of Ksh 150,752,571 from the Road Maintenance Levy Fund towards road maintenance in the Financial 2017/18 (OCOB, 2019).

Road network

The county has a total of 3,143.19 km of classified road network. The paved County road network covers 57.25 km, while the paved National roads cover 190.65 km. Out of the total paved road network of 247.9 km, 62 per cent is in good condition, 36 per cent in fair condition and 2 per cent in poor condition. The unpaved road network in the county covers 1903.37 km (county roads) and 151.35 km (national roads), of this, 15.7 per cent is in good condition, 57.4 per cent fair and 26.9 per cent in poor condition as depicted in figure 6.5 (KRB, 2019).

Figure 6.5: Road condition mix-classified road network



Source: KRB (2019)

The unclassified road network in the County covers 840.57 km, with 737.83 km of narrow roads, that is, road with a reserve of between 4 -9 meters, while there is a total of 102.74 km of new roads.

6.1.2 Constraints faced

The Rural Access Index (RAI) measures the proportion of the rural population who live within 2 km of an all-season road[5]. The county has a RAI of 99 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 26.9 per cent is a constraint to development.

Linkages to other sectors

Transport has linkages to agriculture and trade facilitation

6.1.3 Opportunities with COVID-19 in infrastructure

With reference to the 8-point stimulus programme by the National Government[6] 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[7] 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[8] offers a strategic and cost-effective approach to improve rural accessibility in the County.

6.1.4 Emerging Issues

- Poor road conditions for unpaved network

6.1.5 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) Expand the county capability for telecommuting and teleworking and develop relevant policies in support of the same.

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

[6] Government of Kenya 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/roadsper cent202000per cent20strategicper cent20plan.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) Re-develop bus parks and termini to address crowding and social distancing concerns stipulated in the public health guidelines.

(v) 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.

(vi) 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[9].

(vii) Improve and expand infrastructure for Non-Motorized Transport (NMT) in urban areas and along roads with heavy -high speed 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[10].

(viii) 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.

(ix) 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

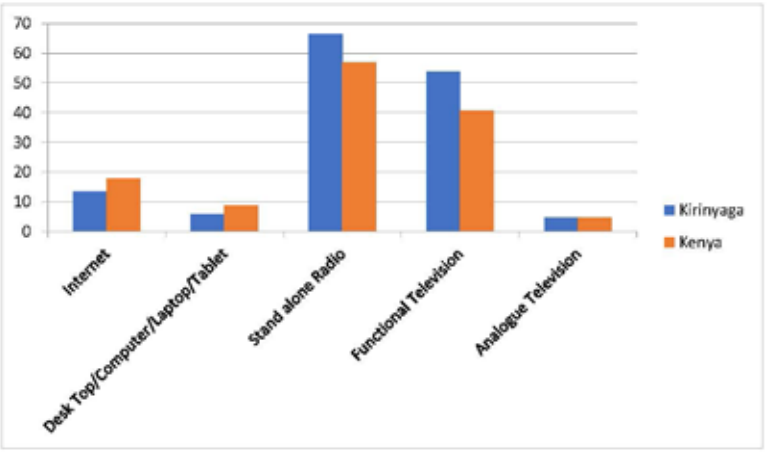
6.2.1 Characteristics of the sector

The analysis of the 2019 KPHC reveals that only 13.6 per cent of the conventional households in the county 'own' internet with 5.9 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).

[9] Roads 2000 programme http://krb.go.ke/our-downloads/roadsper cent202000per cent20strategicper cent20plan.pdf

[10] Sustainable Mobility for All: https://sum4all.org/implementing-sdgs

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



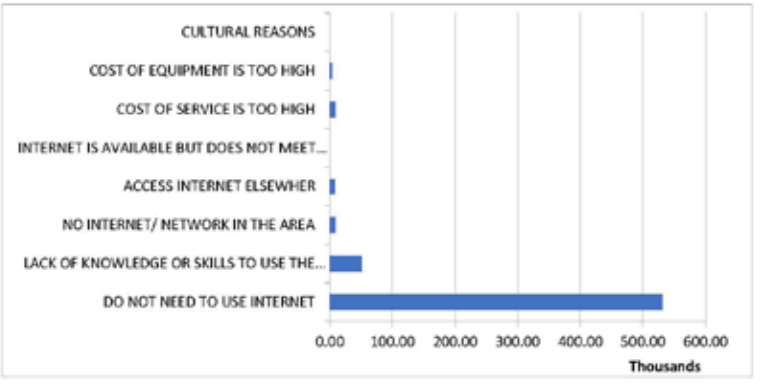
Source: KNBS, 2019-Kenya Population and Housing Census

Online shopping is not prevalent in the County. 2.8 per cent of the conventional households searched and bought goods/services online. There exists gender disparity in online shopping with more men (3.3 per cent) than women (2.4 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 (KHIBS). Other key factors include the lack of internet/network in the area, and the high cost of service and equipment, figure 6.7.

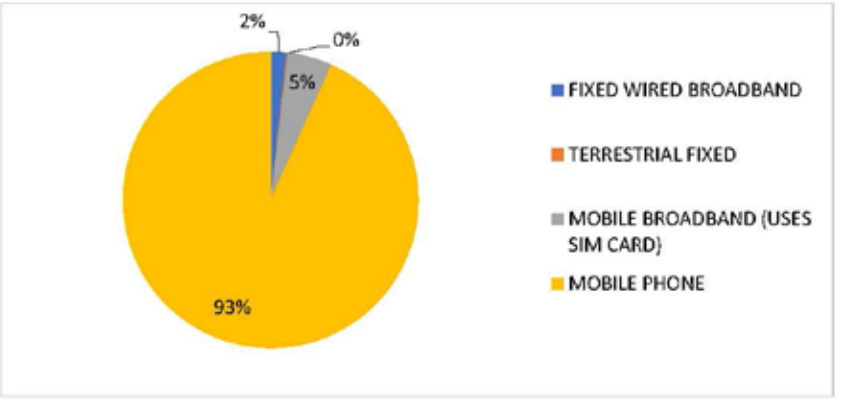
Approximately 93 per cent of the internet users in the county rely on mobile phone for connectivity, with a marginal population of 5 per cent relying on mobile broad band that uses a sim card for connectivity, figure 6.8.

Figure 6.7: Why doesn't this household have any type of Internet connection?



Source: KNBS, 2016- KIHBS 2015/16

Figure 6.8: Type of Internet connection



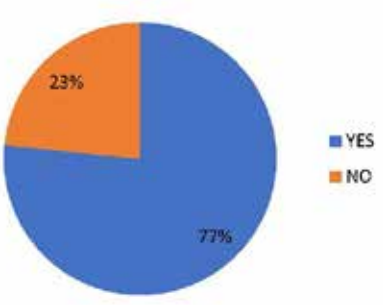
Source: KNBS, 2016- KIHBS 2015/16

Approximately 61.3 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.

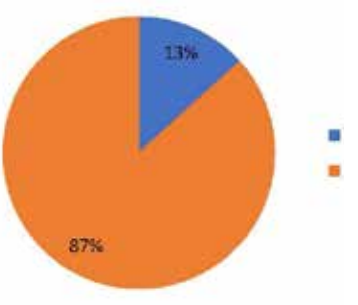
Approximately 77 per cent of the people in the county have a mobile money subscription compared with only 13 per cent that have mobile money banking platform subscription (KHIBS 2015/16).

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

Mobile money transfer subscription KHIBS 2015/16



Mobile money banking platform Subscription KHIBS 2015/16



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 26.1 per cent of the men and 22.1 per cent of the women using internet, while 10.9 per cent of the men and 8.5 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.

6.2.2 Constraints faced

(i) Low household ownership and use of ICT assets

(ii) Low penetration of e-commerce

(iii) Households perceive that they do not need to use the internet,

6.2.3 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.

6.2.4 Opportunities

(i) Potential to use ICT infrastructure and services in public primary schools for community access to ICT.

(ii) Emerging technology such as satellite and airborne transmitters for internet connectivity.

(iii) Potential to create and transform home based economies dependent on e-commerce for women and youth.

6.2.5 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 34.3 per cent to 100 per cent in line with the global agenda for Universal Access to Mobile Telephony11

(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. Collaborate with IT personnel in Universities to support the development of ICT competence and skills among the public and bolster a digital economy.

(iv) Negotiate with the public primary schools for community access to ICT infrastructure and collaboratively build and equip youth empowerment, ICT centres and ICT laboratories as provided in the CIDP.

(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.

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

(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. 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

There are eight urban centres in the County with a total population of 47.7 per cent males and 52.3 per cent females, table 7.1. The urban land area covers 84 square kilometers with a population density of 1,631 persons per sq.km

Table 7.1: Distribution of population by urban centres and gender

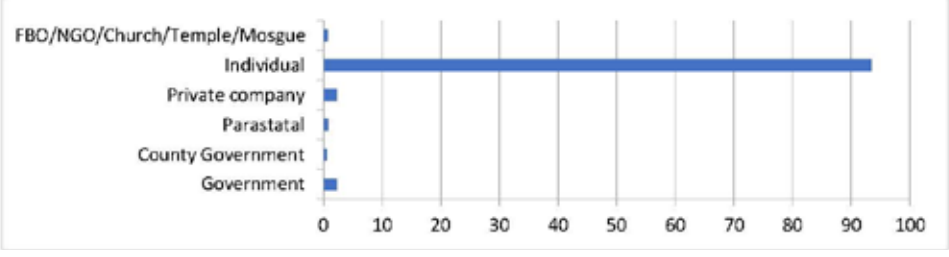
Urban Center	Population	Male	Female
Wanguru	51,722	24,846	26,868
Kerugoya	30,045	14,474	15,571
Kagio	13,961	6,294	7,663
Sagana	11,203	5,462	5,741
Kutus	9,143	4,441	4,702
Kimbimbi	6,826	3,221	3,604
Kagumo	3,673	1,702	1,971
Kianyaga	2,974	1,325	1,649

Source: KNBS 2019- Kenya Population and Housing Census

7.1 Characteristics of the Sector

The housing tenure is predominantly owner occupied at 69.9 per cent, with 30.1 per cent of the households under rental tenure. Individuals are the primary providers of rental housing at 93.4 per cent, followed by National Government (2.3%);and Private Companies (2.3%) (Figure 7.1). For those who own homes, 95.1 per cent constructed the houses while 1.3 per cent purchased the house and 3.6 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 (65%) compared to women (35%) in the County (KIHBS, 2015/16).

Housing quality

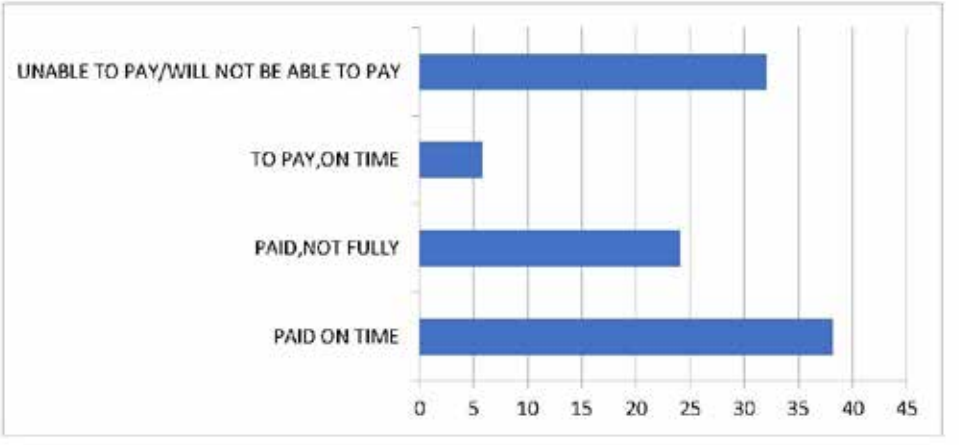
On average, the main dwellings of houses in the County have 2.86 habitable rooms against an average household size of 4.23 persons in a household, translating to approximately 1.48 people per room. According to the UN-Habitat, overcrowding occurs when there are more than three people per room[12]. In terms of housing quality (building material), 72.92 per cent of houses are constructed using finished materials for walls, floor and roofing compared to 27.08 per cent constructed using rudimentary materials (KIHBS, 2015/16). Majority of households (95.0%) have iron sheets for roofing, Timber walls (27.5%) and Earth/Sand floors (42.2%) (KNBS, 2019).

Rent payment

On average, rental households spend approximately KSh. 3680 on rent with a minimum of Ksh 1 and the maximum of Ksh 16000 (KNBS, 2020b). The county recorded a rent to income ratio of 16.39 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 31.99 per cent of the population indicating inability to pay rent on the agreed date for April 2020, figure 7.2, compared to 38.15 per cent of the population that were able to pay rent on the agreed date and 26.15 per cent who paid rent on agreed date before COVID-19 pandemic (Figure 7.2).

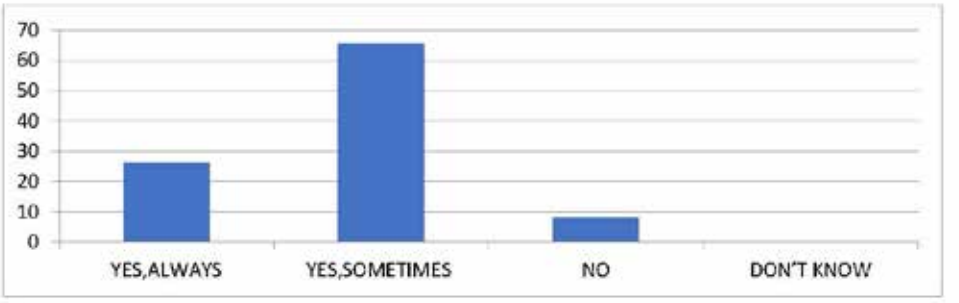
Figure 7.2: Has your household paid the rent for April 2020 on the agreed date



Source: KNBS COVID-19 Impact Survey 2020 wave 2

12 Household crowding measure: https://www.ncbi.nlm.nih.gov/books/NBK535289/table/ch3.tab2/#:~:text=Overcrowdingper cent20occursper cent20ifper cent20thereper cent20are,perper cent20habitableper cent20roomper cent20(88).&text=Crowdingper cent20occursper cent20ifper cent20thereper cent20is,per cent2Drooms)per cent20(89).

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

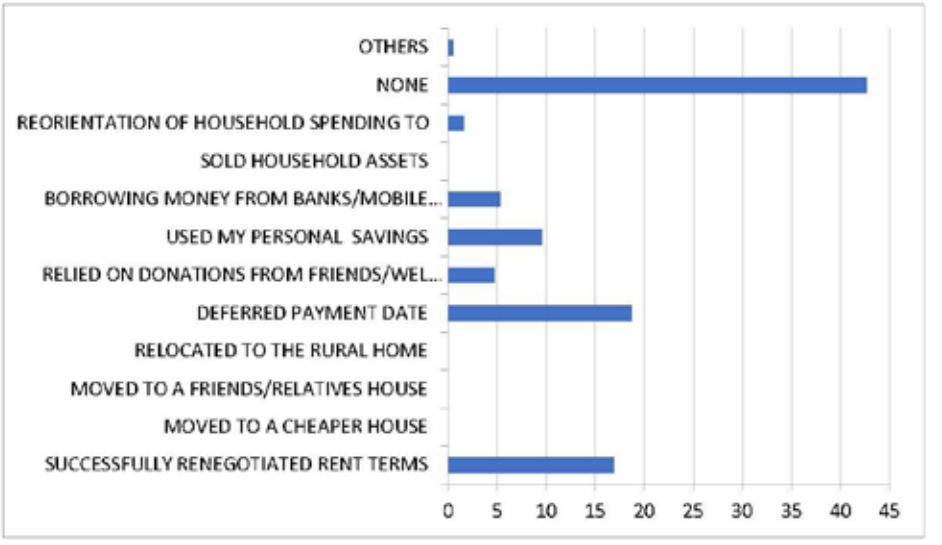
The main reason that had made households unable to pay rent was attributed to reduced incomes /earnings, reported by 71.26 per cent of the population. The inability to pay rent was attributed to the COVID-19 pandemic by 86.91 per cent of the population, figure 7.4.

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 (74.45 per cent) did not receive a waiver or relief on payment of rent from the landlord, with 12.99 per cent reporting a partial waiver. To overcome the effects of Corona virus on payment on rent, majority 16.91 per cent of households renegotiated rent terms, while 42.67 per cent of households did not take any measures. Approximately 9.56 per cent used personal savings to pay rent (Figure 7.5).

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, 75.3 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.

- Household inability to pay rent due to livelihood shocks

7.2 Opportunities

- Partnership with National Government and Private Sector for home improvement (roof, floor and walls) under the Big Four Agenda.

7.3 Emerging Issues

- Existing stock of owner-occupied homes that can be improved using finished building materials for roofing, walls and floors.

7.4 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 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 circumstances.

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 Characteristic of the Sector

The main tourist attractions in Kirinyaga County are physical attractions (Mt Kenya forest; Mt. Kenya National Park; Daraja ya Mungu ("God's Bridge"); numerous waterfalls; Water sports (Sagana white water rafting). Wildlife in Mt. Kenya Forest. The county has indigenous natural forests covering an area of 35876 Ha. which support eco-tourism product. There are several Heritage and cultural sites including Kirinyaga Mass Grave in Kerugoya; Muringa wa Giacai in Kanyekiini ward 'Darasa ya Ngai' (Gods bridge) in Murinduko ward; Munyu wa Ngungu and Ngungu fall in Kabare ward; Initial Kabare church; Munyu wa Kabonga in Kabare ward; Castle forest lodge in Kabare ward; Karaba prison; a mass grave site in Wamumu ward; Old structures within Wamumu rehabilitation school; Sagana old bridge in Kariti ward; Mugumo wa Kiini in Kiini ward; Shrine area at Kadongu. Kirinyaga County has only one Museum which is a church based. It was initiated and managed by Kabare Bible School though currently, not in function it was abandoned.

In terms of accommodation facilities, there are 22 registered hotels (10 of which can achieve star-rating), 12 unclassified hotels and 348 bars and restaurants located in different parts of the county. According to the 2019 Tourism Regulatory Authority, the County does not have star-rated establishments. Accommodation and food services accounts for 0.2 per cent of Total GCP

Kirinyaga county has 3 main stadia, one located in Mwea sub-county, the other at Kianyaga in Kirinyaga East sub county and the last one in Kerugoya, Kirinyaga Central. Kirinyaga County is in the process of implementing a documentation centre. Although the county is well endowed with tourist attractions, they are underutilized due to poor marketing, insufficient hotel capacities and poor transport network.

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

The strategies for re-engineering of the tourism sector include:

i) Mapping of tourist zones; registration of herbalists

ii) Upgrading of the existing tourism facilities and creating additional facilities e.g. Mwea National Game Reserve to a National Park.

iii) Tourism infrastructure development: establish a golf resort; hiking routes; tourism tertiary training facilities; recreation / amusement parks; establishment of a tourism information centre; Animal Sanctuary;

iv) Establishment of annual tourism expos; cultural competitions

v) Renovation of cultural heritage sites / assets.

vi) Diversification of tourism product: home-stays; golf tourism (an 18 hole golf course); medical tourism; eco- and conference tourism, mountain climbing, mountain hiking, motor racing, water sporting and golfing.

vii) Enabling environment for tourism investment.

viii) Enhance international and domestic tourism marketing.

9. Health

9.1 Characteristics of the Sector

General health provision in the County

In Kirinyaga county, there are 109 public health institutions, 39 mission/NGO institutions the largest one being Mwea Mission Hospital and 54 private clinics.There are 3 level four facilities located in Kirinyaga, Central, Gichugu and Mwea constituencies. In addition, there is one private hospital namely Mt. Kenya hospital located in Kerugoya town. In addition to these, there are 10 level three facilities, 45 level two facilities and 51 level one facilities which are spread all over the County.

Table 9.1: Health provision

Year	2018	2019/20
Health facility density		
Primary health facilities	120	255
Hospitals	22	14
Number of health facilities	*142*	*269*
Health facility density	2.4	3.9
Bed density		
Hospital beds	1,431	1,461
No. of Beds per 10,000 population	22	22
Human resource density		
Total workforce	1,190	2,288
Human Resources for Health (Technical)	964	1,244
Number per 10,000 population	18.1	20.0

Source: Ministry of Health (2021)

In 2019/2020, the number of health facilities in the county were 269 comprising of 255 Primary health facilities and 14 hospitals. This was an improvement from a total of 142 health facilities in the previous year, 2018. The number of beds per 10,000 population is 22 which is lower than the WHO recommendation of 30 beds per 10, 000 population. The health facilities and personnel serve a growing population of 610,411 people, according 2019 census. In 2019/20, total health workforce was approximately 2,288 representing 20 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	20.7
Government health centre	12.4
Government dispensary	38.5
Faith Based (church, Mission) Hospital / Clinic	6.1
Community Health	1.2
Private hospital / clinic	24.2
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	0.0
Other	0.2
Number of Individuals ('000)	139

Source: KNBS (2016), 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 dispensary at 24.2 per cent and 38.5 percent followed by those who visited government hospitals and government health centres at 20.7 percent and 12.4 per cent, respectively. About 6.1 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, 29.1 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 77.5 per cent of the population. Employer contributory insurance cover was reported by 1.8 per cent of the population. Private contributions to insurance cover were reported by 26.4 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 (per cent)
Population ('000)	608
Share of population with health insurance (per cent)	29.1
NHIF	77.5
Private-Contributory	26.4
Private-Non-Contributory	0.5
Employer-Contributory	1.8
Employer-Non-Contributory	0.6
Other	0.3
Number of Individuals ('000)	177

Source: KNBS (2016), KIHBS 2015/2016

Place of delivery

In the 2015/16 KIHBS, women in Kirinyaga 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 3.8 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, Clinic/ Dispensary was 74.2 per cent, 12.0 per cent, and 7.1 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 (per cent)**
Hospital	74.2
Health Centre	12.0
Clinic/ Dispensary	7.1
Maternity Home	1.4
At Home	3.8
Other	0.3
Not stated	1.1
Number of Individuals ('000)	56

Source: KNBS (2016), KIHBS 2015/2016

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 41.4 per cent of the children aged 12-23 months were fully immunized against measles at 9 months while 11.5 per cent were fully immunized against measles at 18 months.

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

		Proportion of Children
Vaccination Card	Yes Seen	54.2
	Yes, Not Seen	41.3
	No	4.5
	Not stated	0.0
Measles Vaccination	Measles I (At 9 months Card)	41.4
	Measles II (At 18 months Card)	11.5
	Measles II (Mother/ Guardian memory)	42.2
	Either (card or memory)	83.6
Number of Individuals ('000)		56

Source: KNBS (2016), KIHBS 2015/2016

Health outputs

The most prevalent diseases in the County include flu at 38 percent, respiratory diseases at 36.9 percent, malaria at 21.6 percent, diarrhoea at 6 percent, and stomachache at 2 percent. Malaria is however on an upward.

Malnutrition is not a big concern in the county. The county proportion of stunted children of 17.2 per cent, wasted children of 3.9 per cent and underweight children of 7.7 per cent below the national averages of 26 per cent, 4 per cent and 11 per cent respectively. This is attributed to the fact that most mothers breastfeed their children during their first year coupled with constant supply of food.

Child vaccination in the county is 98.3 percent. This is higher than the national figure, which stands at 78 percent. About 92.3 percent of mothers have access to skill delivery while about 6.5 percent are children born at home. The vaccines that are administered free of charge by government healthcare centres include polio, tuberculosis, measles, diphtheria, meningitis, pertussis, tetanus and typhoid diseases.

Access to contraceptives is high since most of the services are offered free of charge in most government owned institutions. Contraceptive acceptance in the county is 65 percent. This high level of access can be attributed to free family planning services offered at public health facilities and high level of awareness. Condoms, pills and coils are the most prevalent contraceptives.

Table 9.0.6: Health sector performance

Key Health Indicators	County Estimates
Maternal and Child Services	
Skilled delivery (per cent)	92.3
Children born at home	6.5
Fully immunized child	98.3
Child Mortality	
Infant mortality (/1000)*	0
Under-5 mortality (/1000)*	72
Neo-natal mortality (/1000)*	0
Nutrition Status	
Stunted children (per cent)	17.2
Wasted children (per cent)	3.9
Underweight children (per cent)	7.7
HIV (per cent)	
HIV adult prevalence (per cent)	3.1
Children with HIV(No.)	0
ART adult coverage (per cent)	65
ART children coverage (per cent)	100

Source: KNBS (2014), KDHS, 2014; KNBS (2018), DHIS 2018

Effects of COVID-19

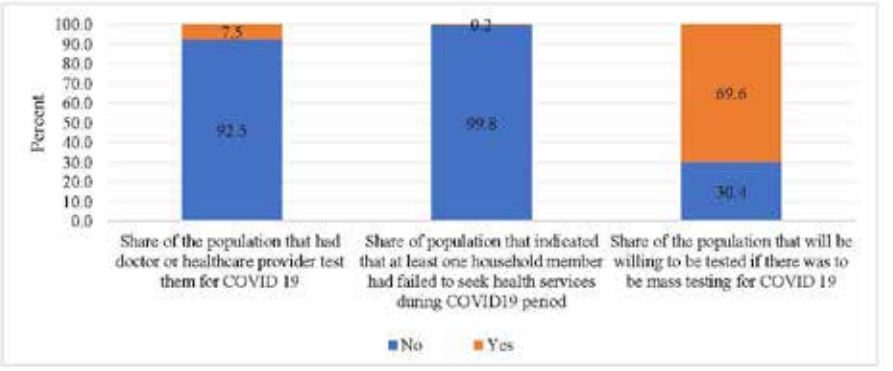
Kirinyaga just like other counties in Kenya, has been affected by the COVID-19 outbreak. However, the county seems not to be well prepared as it lacks enough money to put preventive measures in place. This even after it recorded 24 cases of COVID-19. The county had not met the 300 bed requirements as of June, 2020. The county had only 14 isolation beds at the Kerugoya Referral Hospital, which is the biggest facility in the region. About 18 health workers have been put in isolation for suspected COVID-19 cases. About 45 medical officers and specialists, 135 clinicians, 453 nurses and 8 consultants ready to deal with the pandemic. About 420 community volunteers have been sensitized on COVID 19. The county government had conducted around 1,100 coronavirus education sessions, reaching about 200,000 people in hospitals and market centres. It has also distributed masks and sanitizers to vulnerable groups and individuals, including the elderly, market traders, the disabled and boda boda operators.

Recruitment for more health workers is in place to boost the human resource (nurses and clinical officers) in the hospitals. The county also offers counselling services to her health care professionals over and above the safety measures for the front-line health providers. To enhance mobility and access, the county has purchased a new vehicle to facilitate more efficient transportation of reagents to Nairobi, which is depended upon for testing services.

However, the county faced some drawbacks in the fight against the pandemics for some instances. The county had shortage of doctors, nurses and specialists. Most of the healthcare workers in the county required adequate training on the COVID-19 management protocols and infection prevention. The County had two isolation centres. Inadequate PPEs among the frontline healthcare workers working in various health care facilities. The health sector needs to focus on empowering the workforce and upgrading of working conditions and provision of requisite health commodities and equipment, especially in relation to personal protective equipment and occupational safety, implementing the following strategies.

In June 2020, Kenya National Bureaus of Statistics conducted a survey of COVID-19. The results showed share of the population that had doctor or healthcare provider testing or confirming to them the status in regards COVID-19 was estimated at 7.5 percent in 2020 (COVID-19, Wave 2 survey). Further only 0.2 percent of the population indicated that at least one household member had failed to seek health services and 69.6 per cent of the population indicated they will be willing to be tested if there was mass testing for COVID-19.

Figure 9.1: COVID-19 Testing, 2020



Source: COVID 19 Wave 2 (June 2020)

As per the latest National Adolescents and Youth Survey (NAYS) report of 2020, the main health problems affecting young people are teenage pregnancies, drug and substance abuse (DSA), STI and/or HIV and AIDS infections, malnutrition, mental health problems, SGBV and abortion. Other problems that were mentioned are poor sanitation and existence of diseases such as malaria. The main causes of the health issues in the county are high levels of poverty in households, fear of knowing HIV status. Addiction to DSA, idleness, parental negligence/lack of parental guidance and lack of or inadequate health information and services.

Drug abuse has also caused major damages to the young people who indulge in it due to peer pressure. This leads to mental health problems hence dropping out of school and other getting involved in crimes and other social evils such as prostitution. Malnutrition was attributed to high poverty levels in the county whereby people cannot afford food of good nutrients. There is also poor sanitation and lack of water. This catalyze the spread of other diseases such as typhoid and cholera, which are causes of morbidity and mortality rates in the county.

The above challenges can be addressed by introducing guidance and counselling among the youths, expanding school feeding programmes, starting campaigns against drugs and substance abuse, Provision of clean water, free sanitary pads issuance and health education that promotes positive cultural practices.

Kirinyaga County has incorporated a strong focus on outreach into their County Integrated Development Program. Their aim was to facilitate and run outreach health facilities within the next five years. The county government recognizes that transformation will only be successful if it integrates healthcare financing, adequate human resources and proper data collection to inform the health interventions needed in the county to recovery from COVID-19 effects.

Advancement in ICT also helps improve health sector. This is because with ICT, it is easy to scan for diseases and manage the treatment. With advancement in ICT, it is possible to do diagnosis to patients and treat them promptly. Good water and sewerage facilities also contributes greatly in reduction of diseases such as cholera, typhoid and other waterborne. This is because my 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 helps 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.

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 centralized at the Coast general hospital.

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 has 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 contributed to general improvement of the health sector in general.

9.3 Emerging Issues

Inadequate protective gears for health workers but the county government is positive on the support from the national government. Fear among the public has made many avoid the hospitals. There was also no enough medical personnel to manage the COVID-19 as seen in the county. There is also the issue of inadequate bed capacity to accommodate large number of people especially in ICU unit.

The county should 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.

9.4 Recommendations

Following the current state of health in the county and factoring in the trend in key health sector indicators, the county should adopt the following recommendations:

(i) The County needs to consistently allocate resources towards nutrition specific and sensitive programmes in the various sectors by establishing specific budget lines for nutrition support initiatives.

(ii) The county should also revamp, expand, modernize and equip all health facilities, including, Kerugoya County Referral Hospital; recruit additional public health officers and community health workers to strengthen preventive and primary health systems in the County.

(iii) The county should also support investment in research and development to spur innovation in health sector including in the area of medicine in collaboration with KEMRI.

(iv) Implement a comprehensive human resource health management system including undertaking training needs assessments and enhancing information system to ensure equitable distribution of skilled and motivated health care workers across all sub-counties.

(v) Promote and support public and community health including the installation of hand washing facilities in homes and institutions such as schools, tertiary education institutions, workplaces and health care facilities within Kirinyaga county.

(vi) Fast track establishment of The Kenya Medical Research Institute (Kemri) branch in the county which will entail putting up a multi-billion-shilling referral and teaching centre in Mwea. This will create employment among county residents and enhance medical research capacity in the county.

10. Education and Training

10.1 Characteristics of the Sector

General Education Provision in the County

Kirinyaga County has a total of 348 pre-primary centres, 326 primary and 143 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 in preparation for re-opening.

Currently Kirinyaga County has 198 public ECDE centres manned by 447 ECDE teachers under contract. The ECDE enrolment as at May 2017 was 15,851. This implies the teacher child ratio stand at 1:36. The ECDE centres are still allocated within the public primary schools except for five (5) which are standalone ECDE centres and feeder schools to nearby primary schools. The transition rate has improved from 14,834 in 2013 to 15,851 in 2017. The Kirinyaga DVET sub-sector has a total of 105 instructors constituting of 10 home craft instructors and 95 polytechnic instructors, and 12 principals. The current enrolment is at 752 students in the year 2017. The instructor trainee ratio currently stands at 1:6

About 97.5 per cent of public primary schools in Kirinyaga 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 10.1 presents the GAR by sex and schooling level for the County. GAR for pre-primary school was 82 per cent while that of primary school and secondary school was 110 and 85.1 per cent respectively. The GAR for pre-primary school was higher for males, 84.4 per cent, compared to that for females, 79.1 per cent. The GAR for primary school was higher for males, 113.8 per cent, compared to that for females, 106.9 per cent. The GAR for secondary school was higher for females, 98.9 per cent, compared to that for male, 70.4 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 71.6, 94.6 and 62.1 per cent, respectively.

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

Education Level	Gender	Gross Attendance Ratio	Net Attendance Ratio
Pre-Primary School	Male	84.4	82.1
	Female	79.1	61.3
	Total	82	71.6
Primary School	Male	113.8	95.3
	Female	106.9	94.0
	Total	110	94.6
Secondary School	Male	70.4	55.3
	Female	98.9	68.4
	Total	85.1	62.1

Source: KNBS (2016), KIHBS 2015/16

Basic education gross and net enrolment rate

The pre-primary gross enrolment rate in the county was 96.4 per cent in 2019 and while the net enrolment rate was 68.6 per cent. The Gross Primary and Secondary enrolment rates stood at 107.5 per cent and 94.7 per cent respectively in 2019 while the Net enrolment rates (NER) were 87.5 per cent and 61.4 per cent for primary school and secondary school respectively during the same period.

Table 10.2: Gross and net enrolment rate (per cent), 2019

Pre-primary	2019
Gross Enrollment rate (GER) (per cent)	96.4
Net Enrollment rate (NER) (per cent)	68.6
Gender parity index	0.99
Primary	
Gross Enrollment rate (GER)(per cent)	107.5
Net Enrollment rate (NER) (per cent)	87.5
Gender parity index	0.97
Secondary	
Gross Enrollment rate (GER) (per cent)	94.7
Net Enrollment rate (NER) (per cent)	61.4
Gender parity index	0.99

Source: KNBS (2022)

The county oversees Early Childhood Development which was affected just like other counties nationally. It also oversees the Technical and Vocational Education and Training (TVETs) which have been affected too in terms of training operation. However, in a bid to complement the support from the national government, the county has embarked on mass production of masks through these vocational training centers.

There is a total of 358 pre-primary teachers and enrolment of 24,672 students. The teacher pupil ratio is 1:41. There are 2,916 teachers in the county and total enrolment of 111,400 students. These figures give a teacher pupil ratio of 1:38. The gross enrolment rate in the county is high due to the introduction of Free Primary Education programme (FPE). There are 1,329 secondary school teachers in the county and a total enrolment of 39,988 students. The teacher: pupil ratio is 1:29.

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 89.1 per cent with the male population more literate (94.8%) compared to their female counterparts (84.4%).

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 (per cent)**
Overall county	Literate	89.1
	Illiterate	9.9
	Not Stated	1
	Number of Individuals ('000)	405
Male	Literate	94.8
	Illiterate	4.8
	Not Stated	0.4
	Number of Individuals ('000)	182
Female	Literate	84.4
	Illiterate	14.1
	Not Stated	1.5
	Number of Individuals ('000)	222

Source: KNBS (2016), 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 49 per cent of the population do not have any educational qualification. This is lower than the national percentage of 49.7. Only 1.4 per cent of the population has attained university degree. The proportion of the population with CPE/KCPE qualification is 28 per cent and that of KCE/KCSE qualification is 13.8 per cent.

Highest education

Table 10.4: Percentage distribution of population by highest educational qualification

Highest Educational Qualification	Percentage Distribution of Population
None	49
CPE/ KCPE	28
KAPE	0.6
KJSE	0.2
KCE/ KCSE	13.8
KACE/ EAACE	0.5
Certificate	2.8
Diploma	1.6
Degree	1.4
Basic/post literacy certificate	0.1
Other	0
Not Stated	2.2
Number of individuals ('000)	545

Source: KNBS (2016), KIHBS 2015/16

Percentage distribution of Kirinyaga 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 57.3 per cent while that of females was 57.5 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, 7.1 per cent of males and 5.8 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 (2.7 per cent and 1 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 Kirinyaga County (%)

Educational Level	Gender	Percentage Distribution of Population 3 Years and above
Pre-primary	Male	7.1
	Female	5.8
Primary	Male	57.3
	Female	57.5
Post primary vocational	Male	0.4
	Female	1.3
Secondary	Male	24.4
	Female	28.8
College (Middle-level)	Male	5.6
	Female	3.5
University	Male	2.7
	Female	1
Madrassa/Duksi	Male	0
	Female	0
Other	Male	0.2
	Female	0.2
Not Stated	Male	2.4
	Female	1.9
Number of Individuals ('000)	Male	258
	Female	287

Source: KNBS (2016), KIHBS 2015/16

In the year 2012, Kirinyaga Technical Institute (KTI) was converted into a constituent university college of JKUAT and renamed Kirinyaga University College which on date 7th October, 2016 was granted charter by HE Uhuru Kenyatta the president of the republic of Kenya with 13 academic degree programmes and has since increased the number of academic degree programmes to 17 hence giving the County the first public university. The county also has one private university namely TESCO College. There are 2 public colleges (AHITI Ndomba and Kamweti ATC), 11 Youth polytechnics (YP) (Kimweas YP, Kaithai YP, Kiambatha YP, Kiambwe YP, Kibingoti YP, Kiamikuyu YP, Mucie wa Urata YP, Nyangati YP, Kamigua YP, Mutitu YP and Kiambatha YP), 5 accredited colleges and 8 private non-accredited colleges.

The county has been modernizing polytechnics. The exercise includes construction of new classrooms and dormitories, refurbishment of existing structures, installation of modern furniture and equipment as well as purchase of adequate training and learning materials for polytechnics. Capacity building for trainers is also part of the process. County has 15 youth polytechnics with a current enrollment of 1,311 students out of whom 840 are male

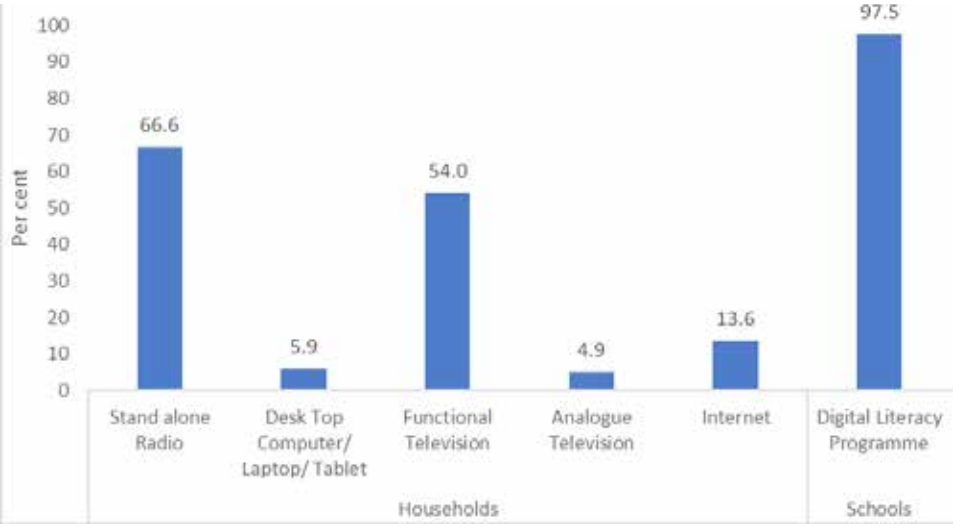
and 471 are female. The enrollment has steadily risen from 1,000 students in 2,017 in the current registration. The Kaitheri Youth Polytechnic in Kerugoya Town has the highest enrollment with 360 trainees.

There are three main players as far as education is concerned. We have parents, teachers and students. Other stakeholders include county and national governments as well as the donors. They play a critical role in ensuring that the education is supported and learners are learning smoothly. 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.

ICT in education

The county has also low internet access (13.6%) which constrains online learning across the County. Furthermore, only 5.9 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 66.6 per cent of the county population has a radio.

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 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 has 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. The pandemic has provided an opportunity for enhancement of the health facilities through advancement in equipment and employment of more health personnel in the county.

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

Limited access to desktops, laptops and internet connectivity by many school going children who have missed the studying at home program. Lack of clear schools re-opening strategy among the private and public schools.

The county government with support from stakeholders aims to continue to invest in early childhood development through infrastructural development, employment of ECDE teachers, provision of sanitation facilities and enhanced school feeding programme. To achieve these objectives, the county will require to partner with the national government and private sector to enhance ECDE and vocation training through infrastructural development as well as equipment of 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

According to the KNBS census 2019, Kirinyaga county has a population of 610,411 of which 6.5 per cent are the elderly and 3.4 per cent are people living with disabilities. The overall poverty rates in the county stand at 44 per cent which is higher than the national average (36.1%). Despite being an agricultural county, the county's food poverty levels are at 20 per cent and 17 per cent of the total population is multidimensionally poor. Further, about 17 per cent of the children population is stunted. The impact of the COVID-19 to the county's economy cannot be gainsaid.

There are minimal efforts in social protection and human resources as more focus is on education, health and water. However, the county continues to monitor the situation as it plans to ensure social protection services are accessible to people. Due to limited resources the county has no plans currently on employment benefits. Apart from waving the charges on licenses and market fees, the county has also undertaken to boost the Small and Medium Enterprises players with loans at low interest rates to get them revived, however, this attracted low reception due to restrictions by banks in lending. Those whose business were adversely affected are provided with food to cushion their families during these hard times. The county government has been distributing food to those affected by the COVID-19. Over 25,000 needy residents of Kirinyaga County have benefited from relief food aid program. The food distribution drive was the second phase of a program that kicked off in May to shield needy and vulnerable families from the effects of COVID-19 pandemic. The first phase that was in May and June saw another 20,000 residents benefit from relief aid.

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 dearth of family member which affected 28 per cent of the households followed by Livestock dearth and Droughts or Floods which affected 6.9 per cent and 6.5 percent of the households in the county. The Household business failure, Loss of salaried employment or non-payment of salary and Large rise in price of food were also other major shocks in the county affecting 3.3 percent, 1.6 percent and 4.6 per cent of households, respectively. Crop disease or crop pests were experienced by 4 per cent of households while other 3 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

First Severe Shock	The proportion of households (%)
Droughts or floods	6.5
Crop disease or crop pests	4
Livestock died	6.9
Livestock were stolen	1.3
Household business failure, nonagricultural	3.3
Loss of salaried employment or non-payment of salary	1.6
End of regular assistance, aid, or remittances from outside the household	0
Large fall in sale prices for crops	1
Large rise in price of food	4.6
Large rise in agricultural input prices	3
Severe water shortage	1
Birth in the household	1
Death of household head	5
Death of working member of household	2
Death of other family Member	28
Break-up of the household	3
Bread winner jailed	-
Fire	2
Robbery / Burglary / Assault	2
Carjacking	-
Dwelling damaged, destroyed	1
Eviction	0
Ethnic/ Clan Clashes	-
Conflict	-
HIV/ AIDS	-
Other	8
Number of households with Shock	**104,000**

Source: KNBS (2016), KIHBS 2015/16

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, 47 percent of the households received cash transfers. A higher proportion of households received transfers from within the country (75%), mainly from individuals (83%) 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	198,000
	Households receiving transfers (%)	*47*
From Inside Kenya	Individual	12,424
	Non-Profit Institution	46
	National Government	635
	County Government	112
	Corporate Sector	-
Inside Kenya		13,217
Outside Kenya		56
Total		12,823
Number of households that received transfers		**92,000**

Source: KNBS (2016), KIHBS 2015/16

The government of Kenya earmarked Ksh 10 billion in form of cash transfers for social protection for the elderly, orphans and vulnerable during this period, but there is need to consider the youths and women who have been rendered jobless. The county government is providing nutritional supplements to over 4000 mothers and malnourished children in the informal settlements most of whom lost their jobs out of the pandemic. The National government in collaboration with the County government recruited 5,000 youths for engagement in menial works across the county under the National Hygiene Programme (NHP). About Ksh 15 million went to the payment of the youths in the County. About 30 women were involved in making the masks at the factory with the full observation of all COVID-19 prevention measures which included working in shifts to maintain social distance. Spearheaded by the County's Department of Gender and Social Services, the project was aimed at producing over 100,000 face masks.

The social protection sector could have benefited from donor contribution and budgetary allocation to the sub sector. The main source of revenue to implement social protection activities in the county are mostly government budgetary allocations and donor contribution to OVCs, PwDs, and the elderly.

The county government complemented 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 increase in poverty and declining of people welfare. With loss of jobs and businesses, most youths were involved in activities such as crimes, prostitution and other social evils. Job losses also increased suffering among 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 and recruitment to terror groups 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 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 e.tc. 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 and other insurances.

Additionally, social protection is directly related to education. The more one is educated the more is informed of existing welfare schemes. Educated people also are aware of the need 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.

Agriculture is the main source of revenue in the country and most of the counties. Kirinyaga is not an exception. Majority of people are involved in livestock keeping and farming. This provides people with source of food as well as revenue which is used to improve their welfare. Agricultural sector also creates employment among many county residents who would otherwise have been jobless. Trade and industry plays an important role bettering life of the residents. This is where majority of people derive their livelihood from especially those engaging SMEs. The profits and savings obtained from business is used in feeding the family members as well as insuring them in future.

11.2 Opportunities with COVID-19 in Social Protection

Regional unity in the fight against corona pandemic and exploitation of the economic potential. The disease has also exposed lack of preparedness among counties in terms of responding to the emergencies such as COVID-19 pandemic. It has also provided an opportunity to measure how county governments are prepared to handle the devolved functions. Health being a devolved function, it has really exposed the counties as many of them lack required health facilities such as ICU beds and enough medical personnel. The virus has also given an opportunity to develop social protection programs to cushion the vulnerable groups in the community in case of outbreak of other diseases.

11.3 Emerging Issues

Regional unity in the fight against corona pandemic and exploitation of the economic potential. The disease has also exposed lack of preparedness among counties in terms of responding to the emergencies such as COVID-19 pandemic. It has also provided an opportunity to measure how county governments are prepared to handle the devolved functions. Health being a devolved function, it has really exposed the counties as many of them lack required health facilities such as ICU beds and enough medical personnel. Lack of comprehensive social protection at the county level exposing the county residents to sufferings such as lack of food and treatment.

11.4 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 should:

(i) 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.

(ii) Enroll more county residents in welfare programmes such as NHIF which will ensure that they access medical treatment in case of falling sick.

(iii) Give tax exemption for the SMES who have suffered losses in their business as result of diseases outbreak. 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.

(iv) Provide food and other basic wants to the elderly 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.

(v) Have 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. Agriculture is the main economic activity in Kirinyaga County. The county is best known for rice production at the Mwea Irrigation Scheme. Coffee and tea are also grown in the cooler areas of Ndia, Gichugu, and Kirinyaga Central constituencies. Majority of the people in the county depend on the sub sector for their livelihood.

With the closing down of market and other businesses, the unemployment has increased in the county. This has worsened the already bad situation. Many people have been rendered jobless due to closing of places such as hotels and clubs where majority of employees are youths. Agricultural sector has also been greatly affected due to travel restriction to move from one country to another. Kirinyaga being a great dependent of the revenue from agricultural sector, many people have lost their sources of income.

The *main economic activities in the county* are crop farming, livestock rearing, tourism, retail and wholesale trade. The farmers in the county had been greatly affected by COVID-19, mainly because of national lockdowns and social distancing policies. The agriculture sector was experiencing a low traffic on sales and movement of goods, which in turn had an adverse effect on market operations and cash flow for farmers. The export and import restrictions created uncertainty on the crop farming and tourism industry forcing the farmers to undertake emergency response measures to prevent the spread of COVID-19 in communities, this resulted to loss of jobs and income amongst the farmers.

The social economic impact of the novel Coronavirus has resulted to loss of jobs, particularly in the informal sector which employ most people in the county. The loss of jobs in the matatu and boda boda industry had directly impacted on the lives of the youth as some residents avoided public means of transport in fear of contracting the virus. In addition, the lockdowns in Mombasa and Nairobi counties had a negative impact on long distance drivers in these sectors. The impacts of the pandemic were also felt on the service sectors as it affected workers in both private and public sector. Several people working in restaurants and bars were rendered jobless due closure as ordered by the government.

Table 12.1: Distribution of population age 5 years and above by activity status, and sex in the county

	Male	Female	Total
Population	270,128	278,213	548,367
Working	166,146	171,352	337,519
Seeking Work/ No Work Available	10,621	7,320	17,941
Persons outside the Labour Force	93,339	99,524	192,868
Not Stated	22	17	39
per cent Working	*94.0*	*95.9*	*94.9*
per cent Seeking Work/ No Work Available	*6.0*	*4.1*	*5.0*

Source: KNBS (2016), KIHBS 2015/16

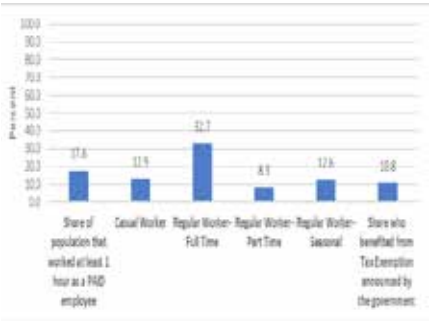
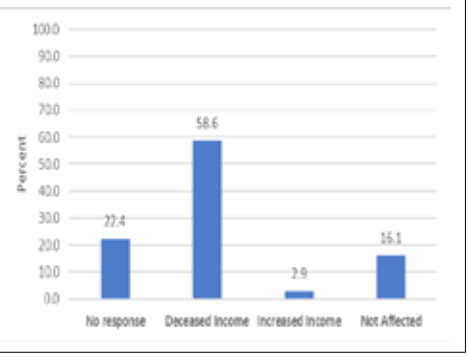
Distribution of Population Age 5 Years and above by Activity Status, and Sex in the County is shown in Table 12.1 above. An assessment on the county labour force indicates the County population aged 15-64 years (labour force) was estimated at 1,282,211 people of whom 1,116,365 people were working and 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 percent 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.

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 percent of county residents recorded decrease in income while 1.0 percent recorded increase in income.

During the pandemic, about 12.9 per cent of workers in the county were casual workers 32.7 cent were regular workers (full time), 8.3 per cent employees were working as part time. However, majority of these workers (58.6%) reported decrease in income while 16.1 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 10.85 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.

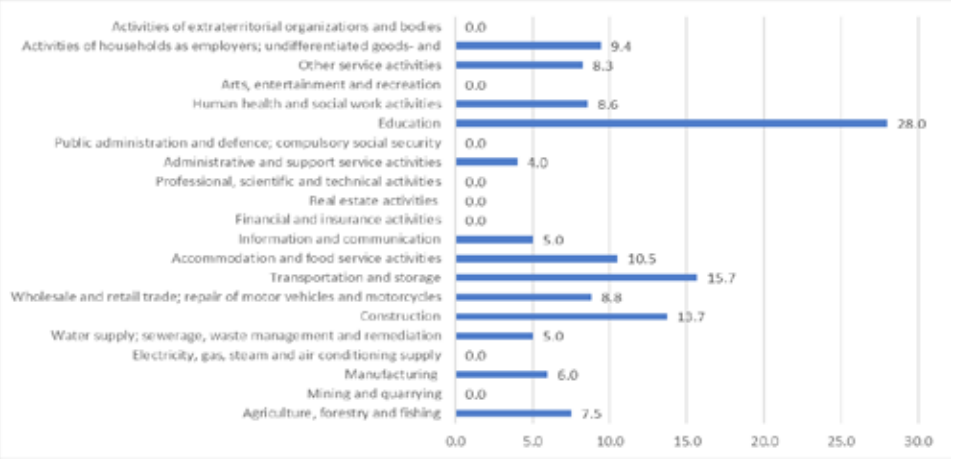
Figure 12.1: Effects of COVID-19, 2020

a) Effect of COVID-19 on Jobs	a) Effect of COVID-19 on Incomes
	

Source: KNBS (2020)

Closing of markets to avoid the spread COVID-19 had various implications on Kirinyaga county which is predominantly an agricultural economy. The emergency of the pandemic saw traders moved to car parking spaces in Kagio, Kutus, Kerugoya and Kianyaga affecting their source income. According to the May 2020 KNBS COVID-19 Survey, workers in Activities of households as employers; undifferentiated goods and Wholesale and retail trade; repair of motor vehicles and motorcycles recorded on average loss of 9.4 hours and 8.8 hours per week, respectively. Education sector reported the highest level of loss of hours worked (28 hours) followed by workers in Transportation and storage (15.7 hours) as shown in figure 3. Workers in construction and accommodation and food service activities lost a total of 13.7 hours and 10.5 hours per week, respectively.

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, 59.0 per cent of workers in Kirinyaga county recorded decrease in income; 1.0 per cent reported increase in income; while 74.9 per cent recorded working as unpaid workers. The county recorded 69.9 per cent of workers in informal sector and 5.3 per cent never attended to work due to COVID-19 related factors. In private sector schools, teachers and other workers lost their incomes due to closure of schools. Some other businesses such as bars, hotels, market centres totally closed, leading to reduced business activities. Some workers in the transport sector were affected due to restrictions of moving in and out of Nairobi and Mombasa counties. On average, the county lost 7.3 hours worked in a week and the hours lost in economic base of the county like service sector and agriculture sector (7.5 hours) will negatively affect the county economy

12.2 Opportunities with COVID-19 in Human Resource Sector

The county government had 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 recalibrate its employees and develop strategies (mid- and post-pandemic strategies) to adapt to the evolving reality

12.3 Emerging Issues

The COVID-19 pandemic had expedited the speed at which different firms and businesses within the county were changing their pay programmes through pay reductions and incentive resets. 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.

12.4 Recommendations

(i) The county will need to expand partnership in the agricultural sector in the county which is the main source of employment. The county will provide financial support for establishment of tomato processing plant and a rice husk factory since the projects will create employment to county residents.

(ii) Promoting implementation of a stronger labour market interventions that drive employment creation innovation. The County shall deepen technical education, training and skills development by increasing the number of technical institutions in all 5 sub counties.

(iii) To improve the quality of MSMEs products, Kirinyaga County will partner with research institutions like Kenya Industrial Research and Development Institute (KIRDI) and the Productivity Centre at the Ministry of Industry to enhance productivity in the county especially in rice and coffee production.

(iv) To promote investment and entrepreneurship through provision of loans, Kirinyaga county will improve access to finance for small and medium enterprises through lending institutions.

(v) The County will build workplace resilience to public health emergencies and outbreaks of infectious diseases in all Kirinyaga County departments.

13. Conclusion and Key Recommendations

13.1 Conclusion

Fiscal policy

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. County expenditure has over the years been rising as the county escalates its efforts in provision of services to its residents. Total county expenditure has grown significantly since FY 2013/14. With the implementation of the first full year county budget in FY 2013/14, actual expenditure in the county increased from Ksh. 1,801.8 million to Ksh 5,597.3 million in FY 2020/21.

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 desert locusts. 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

To build resilience and mitigate the effect of COVID-19, the county will; 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

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.

Infrastructure, housing, and urban development

The main means of transport used in the County is walking at followed by motorbike. The paved County Road network covers 57.25km, while the paved National roads cover 190.65km. Out of the total paved road network of 247.9km, 62 per cent is in good condition, 36 per cent in fair condition and 2 per cent in poor condition. The status of ICT access and use in the county is low, especially among households. The perception that individuals do not need to use the internet is the leading reasons that the people in the County don't have internet connection. The housing tenure is predominantly owner occupied at 69.9 per cent, with 30.1 per cent of the households under rental tenure. With the advent of COVID-19 pandemic, households' ability to pay rent has been affected, with 31.99 per cent of the population indicating inability to pay rent on the agreed date.

Tourism

The main tourist attractions in Kirinyaga County are physical attractions (Mt Kenya forest; Mt. Kenya National Park; Daraja ya Mungu ("God's Bridge"); numerous waterfalls; Water sports (Sagana white water rafting). Wildlife in Mt. Kenya Forest. The county has indigenous natural forests covering an area of 35876 Ha. which support eco-tourism product. There are several Heritage and cultural sites including Kirinyaga Mass Grave in Kerugoya; Muringa wa Giacai in Kanyekiini ward 'Darasa ya Ngai' (Gods bridge) in Murinduko ward; Munyu wa Ngungu and Ngungu fall in Kabare ward; Initial Kabare church; Munyu wa Kabonga in Kabare ward; Castle forest lodge in Kabare ward; Karaba prison; a mass grave site in Wamumu ward; Old structures within Wamumu rehabilitation school; Sagana old bridge in Kariti ward; Mugumo wa Kiini in Kiini ward; Shrine area at Kadongu.

Health

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 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.

Labour participation

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 appropriate labour market interventions especially those working in the tea sector which is a major employer in Kirinyaga 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: Consider an emergency rescue package for businesses and traders hard-hit by the effects of COVID-19 in the short run. The emergency Fund, supported by development partners and other stakeholders, can be used to identify, and support the most vulnerable businesses and entrepreneurs affected by COVID-19. Related, the County will inject some stimulus to cushion the businesses and traders through affordable credit; waiver of some County taxes, cess, and other charges; Spur innovation and promote manufacturing and industry development and generation of jobs for the youth; Establishments in the county will adopt to the new pandemic guidelines including rearranging floor plans to allow for social distancing; Undertake value addition activities in tomatoes and fruit processing in the County in collaboration with KIRDI; and Create forward and backward linkages for MSMEs involved in manufacturing for growth.

Infrastructure, housing and urban development

In addressing the prevailing challenges, the county will identify county significant infrastructure projects, with project speed emphasis, for implementation to support economic recovery from the effects of the pandemic; 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; Develop a policy to promote home ownership to address the problem of rent distress during times of emergency.

Tourism

The strategies for re-engineering of the tourism sector include Mapping of tourist zones; registration of herbalists, Upgrading of the existing tourism facilities and creating additional facilities e.g. Mwea National Game Reserve to a National Park, Tourism infrastructure development: establish a golf resort; hiking routes; tourism tertiary training facilities; recreation / amusement parks; establishment of a tourism information centre; Animal Sanctuary; Establishment of annual tourism expos; cultural competition, Renovation of cultural heritage sites / assets, Diversification of tourism product: home-stays; golf tourism (an 18 hole golf course); medical tourism; eco- and conference tourism, mountain climbing, mountain hiking, motor racing, water sporting and golfing, Enabling environment for tourism investment and Enhance international and domestic tourism marketing.

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.

Education and training

The County with support from stakeholders to invest in early childhood development through infrastructural development to allow for adequate social distancing; 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.

Labour participation

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.

Kenya Institute for Public Policy Research and Analysis
Bishops Garden Towers, Bishops Road
P.O. Box 56445-00200, Nairobi, Kenya
Tel: +254 20 4936000; +254 20 2719933/4
Fax: +254 20 2719951
Email: admin@kippra.or.ke
Website: http://www.kippra.org