

Socio-Economic Status of Bungoma County with COVID-19

Eldah Onsomu, Rose Ngugi, Evelyne Kihui, 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



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**Kenya Institute for Public Policy
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KIPPRA in Brief

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List of Acronyms

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

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Executive Summary

1.1 Fiscal Policy

The County's main revenue sources comprise of the transfers from the National Government, Conditional Grants, and its own source revenue (OSR). The county's total revenues have grown by 80 per cent from Ksh 6.72 billion in FY 2013/14 to Ksh 12.09 billion in FY 2019/20, representing an average annual growth rate of 13.3 per cent. The significant growth in total revenues is similarly mirrored in the growth of equitable share from the National government, which contributes the largest share of the county's revenues. The share of OSR increased from 2.72 per cent in FY 2014 to 7.44 per cent in FY 2019/20. This accentuates the potential to increase county's total revenues through generation of more OSR as well as conditional grants from development partners. The County receives conditional grants from the National Government and development partners mainly from World Bank, Danish International Development Agency (DANIDA), European Union and Sweden. In FY 2020/21, it received Ksh 430.76 million and Ksh 663.59 million from National Government and Development partners respectively. Total county expenditure has grown significantly since FY 2013/14. With the enactment of the first full year county budget in FY 2013/14, actual expenditure in the county increased from Ksh 4,160.9 million to Ksh 11,393.6 million in FY 2020/21, an average annual growth rate of 24.8 per cent. Total budget execution averaged 72.5 per cent in the period FY 2013/14 to FY 2020/21. The county to continue tightening budget implementation to ensure achievement of greater absorption rates to help achieve the targets in ADPs and the CIDP.

1.2 Agriculture, Livestock and Fisheries

Crop and livestock production are the main economic activities in Bungoma County. Key agricultural value chain commodities in the County include maize, beans, bananas, sweet potatoes, kales, ground nuts, cassava, sugarcane, potatoes, sorghum, millet, green grams, Avocado, Mangoes, Coffee, cattle, sheep, goats, poultry production, pig, donkey 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 other than on farms since family labour was available at home. 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; low agro-processing and value addition opportunities; low access to quality and affordable inputs; low crops, livestock, and livestock products marketing opportunities; 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 needs to: explore partnerships to develop agro-processing and value addition capacities at the County; 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; provision of storage and cooling facilities; and strengthen agricultural cooperatives.

1.3 Water Sanitation and Hygiene (WASH)

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 governments faced challenges in revenue collections since COVID-19 resulted into reduced incomes among households and businesses, thus deferred 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. The county acquired a water rig to boost borehole drilling. Partner with private sector, donor agencies, local communities, and NGOs to help develop water infrastructure.

1.4 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. Observation of curfew hours limited working hours thus production. In sustaining growth in the Manufacturing, Trade and MSMEs sector, the County needs to: Establish 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, will be used to identify, and support the most vulnerable businesses and entrepreneurs affected by COVID-19; Revive Nzoia sugar company, Rai Paper Factory, Kitinda Dairy Plant and Malakisi cotton ginnery; Collaborate with the National government to ensure security is enhanced to reduce on crime and create a peaceful business environment.

1.5 Infrastructure, housing and urban development

The main means of transport used in the County is walking followed by bicycle, motorcycles and vehicles. The paved County road network covers 37.35 km, while the paved National roads covers 208.8 km. Out of the total paved road network of 246.15 km, 24.4 per cent is in good condition, 67.53 per cent in fair condition and 8.07 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, lack of knowledge and skills on internet are the leading reasons that the people of in the County do not have internet connection. The housing tenure is predominantly owner occupied. The county has challenges in quality of the housing stock. Approximately 75.9 per cent of houses are constructed using rudimentary materials. In responding to the prevailing challenges, the county needs to adopt climate smart road engineering designs to safeguard road and bridge infrastructure from floods and to harvest storm water for irrigation and productive use; Bridge the digital divide and provide ICT access to the “ICT have nots”, invest in programmes that will enable households acquire ICT assets such as smart phones and laptops; Avail appropriate building technology for use by the public in house construction and improvement in every subcounty, that responds to local cultural and environmental circumstances.

1.6 Tourism

The key tourism attraction sites in the County include physical attractions, wildlife, cultural and heritage tourism, agro-tourism, traditional medicine, and sports tourism. The County has several classified hotels and restaurants that makes up the hospitality industry. However, demand for modern hotels and restaurants surpass the supply, hence the need for Public-Private-Partnership initiatives to fill the gaps in the sector.

Considerable opportunities for expansion exist in safari, conference, business, and diaspora tourism. Furthermore, the County has great potential to expand products that are more recently in greater demand, such as nature/adventure tourism, cultural heritage tourism, and travel for wellness, health, and retirement purposes.

1.7 Health

The County has a total of 197 health facilities: one County referral hospital, one County hospital, eight Sub-County hospitals, 19 health centres, 89 dispensaries, 60 private clinics and 19 faith-based facilities. Bed occupancy within the County ranges between 60 per cent and 92 per cent. In this regard, the demand for inpatient services outweighs the bed capacity resulting in 115 per cent bed occupancy. There is need to expand the bed capacity in the County health system. Additionally, one nurse serves 2,661 patients against the recommend WHO ration of 1:400, hence the need to recruit more health personnel in the county hospitals. In Bungoma County, 6.5 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 71.7 per cent of the population. About 50.3 per cent of children were delivered at home which is higher than the national percentage of 31.3 per cent. The proportion of children born in hospitals, health centres, dispensary/

clinics was 32.0 per cent, 10.5 per cent, and 3.3 per cent respectively. The county had 29.5 per cent of the children aged 12-23 months who were fully immunized against measles at 9 months while 2.4 per cent were fully immunized against measles at 18 months. There is need to create awareness on availability and importance of free maternity services and address other constraints to access of maternal health services in the county to address fear of contracting COVID-19 in event of visiting a health facility. Linda Mama Programme was introduced as an incentive for pregnant mothers to access health facilities. It should also utilize community health workers to sensitize the public on the HIV/AIDS to mitigate its spread during the pandemic as well as improving antenatal care by providing pregnant women with more antenatal follow-up services and treated nets.

1.8 Education and Training

Bungoma County has a total of 900 pre-primary centres, 805 primary and 188 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. About 90 per cent of public primary schools in Bungoma County have been installed with ICT infrastructure and devices under the Digital Literacy Programme (DLP). The infrastructures include learner digital devices (LDD), teacher digital devices (TDD) and the Digital Content Server and Wireless Router (DCSWR). TVET institutions contribute to creation of socio-economic success by producing skills intensive human resources. The County has 97 TVET institutions. To ensure quality teaching and learning the County will implement a comprehensive programme targeting to improve TVET infrastructure, human resources and teaching and learning materials. The county targeted to create VTCs centres of excellence. The County with support from stakeholders to continue to invest in early childhood development through infrastructural development deployment of ECDE teachers and provision of sanitation facilities. The County to prioritize projects that improve school water, sanitation and hygiene facilities and management to reduce future effect of similar or related outbreak while promoting public health in learning institutions. (The County to utilize the purchased water rig to drill boreholes in institutions to improve on water supply)

1.9 Social Protection

Bungoma County has an estimated population of 1,670,570 of which, 1.2 per cent are people living with disability and about 3.6 per cent of the population are older people above the age of 65 years. The county has an overall poverty rate of 79 per cent which is higher than the national average which stands at 36 per cent. Further, the county a food poverty rate of 36 per cent, and a resulting multidimensional poverty rate of about 33 per cent. An average of 24 per cent of children in the county are stunted. The county to design and implement a disability grant to all those who are severely disabled. This will benefit over majority of people who living with disabilities in the county. Partner with other key stakeholders within the regional block to ensure borders are manned and enhance cross border screening. This would drastically slow the spread of the virus and, 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. A programme to

take of social needs for the people affected by the COVID-19 need to be put in place. (The county to put in place a social support programme targeting food poor households)

1.10 Labour Participation

The main economic activity in Bungoma is sugar, the county boast one of the largest sugar factories and a few small-holder sugar mills, the county also practices farming. The agricultural set up has been the main source of economic income for many in the region as well as the service industry. The formal sector employment accounts for less than 20 per cent of the County’s labour force while the rest are wage earners in the informal sectors such as small and medium enterprises, housing, agriculture, and rural development. Drivers of industrialization in Bungoma County include Strategic location, raw materials, existing infrastructure, and regional markets. Industrial potential exists in agro-industrial processing, Paper and Paper manufacture using soft tissue pulp materials, Meat and dairy and sanitary products. These investments can be supported through additional investments in green energy and business development services for private sector facilitation into industrial zones. All industrial investments can best be undertaken in the proposed County Industrial Park. The county needs to prioritize investment to modernize agriculture into a viable commercial undertaking whilst also increasing the quality and supply of human resources across all sectors. The County in collaboration with the national government formulate measures aimed at encouraging employment creation including expanding the national internship programs and promoting Information Technology (IT) enabled jobs.

1. Introduction and structure of County Economy

1.1 Introduction

Bungoma County is one of the counties in the Lake Region Economic Bloc (LREB) with an estimated population of 1,670,570 people of which 48.6 per cent were male and 51.3 per cent female (KNBS, 2019) as indicated in table 1. The county occupies a land area of 3,032.4 km². Of the population 29,203 (2.0%) were persons with disabilities. The youth constituted 34.0 per cent of the population 52.0 per cent of whom were female. The county had a population density of 551 per km². About 88.6 per cent of the population live in rural areas of whom 51.3 per cent are female. The elderly population (over 65 year-old) make up 3.6 per cent of the total population of whom 56.9 per cent were female. The population in school going age group (4-22 years) was 52.1 per cent in 2019.

In 2015/2016, the overall poverty rate in Bungoma County was 36 per cent against the national poverty rate of 36.1 per cent. In addition, 33.2 per cent of the population were living in food poverty and 78.6 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 the KDHS 2014, 24.4 per cent of the children were stunted as compared to the average national level at 26.1 per cent.

Table 1.1: Development indicators in Bungoma County

	County	National
Estimated County Population (KNBS, 2019)	1,670,570	3.1 per cent of total population
Males	812,146	48.6 per cent
Females	858,389	51.3 per cent
Intersex	35	0.02 per cent
Estimated Population Density (km ²)	551	82
Persons with disability	2.0 per cent	2.2
Population living in rural areas (%)	88.6 per cent	68.8 per cent
Children (0-14 years) (%)	47.7 per cent	41.1 per cent
School going age (4-22 years) (%)	52.1 per cent	68.7 per cent
Youth 15-34 years (%)	34.0 per cent	36.1 per cent
Labour force (15-64 years) (%)	49.0 per cent	55.0 per cent

Elderly population (over 65-year-old)	3.83 per cent	3.9 per cent
Number of COVID-19 cases (as at 11 th September 2020) (MOH); National cases were 35,232 people	37	0.11 per cent of the national cases
Poverty (2015/2016) (%)	36.0 per cent	36.1 per cent
Food Poverty (2015/2016) (%)	33.2 per cent	31.9 per cent
Multidimensional Poverty (2015/2016) (%)	78.6 per cent	56.1 per cent
Stunted children (KDHS 2014)	24.4 per cent	26.1 per cent
Gross County Product (Ksh Million) (2020)	206,705	2.1 per cent Share to total GDP
Average growth of Nominal GCP/GDP (2013-2017) (%)	15.4 per cent	104.8 per cent

Data Source: KNBS (2020)

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 567,803 individuals. They are followed by persons aged between 6-13 years who are the primary school children comprising of 419,490 of the county population. The under 0-3 age comprise of 172,148 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	85,511	86,637	172,148
Preprimary school age (Under 4-5)	49,033	48,222	97,255
Primary School Age (6 -13)	209,119	210,371	419,490
Secondary school age (14-17)	97,272	96,334	193,606
Youth Population (15-34)	271,024	296,779	567,803
Female Reproductive age (15-49)		393,972	393,972
Labour force (15-64)	417336	453628	453,628
Aged Population 65+	25,843	34,284	60,127

Data Source: KNBS 2019

1.2 Level of socioeconomic deprivations

In 2015/2016, 25.5 per cent of the population had health insurance cover, 6.5 per cent lived in premises with water, 80.2 per cent lived in their own homes and 63.8 per cent had access to mobile telephone (Table 1.3) and majority of the households (94.1%) had access to toilet facility. As a result, the multi-dimensional poverty is 78.6 per cent.

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

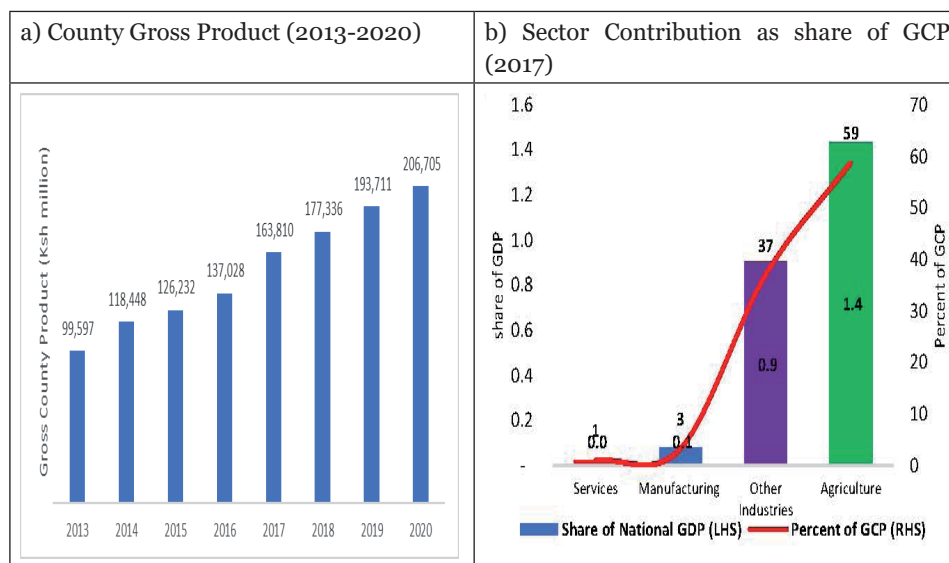
Indicator	Details	Percentage Distribution (%)
Health care	Population with Health Insurance Cover	6.5
Drinking water (Time taken to fetch)	Zero (In premises)	6.8
	less than 30 minutes	64.5
	30 minutes or longer	27.2
Sanitation and Hygiene	Proportion of households with toilet facility	91.3
	Shared Toilet	42.7
	Not Shared	57.3
	Place to wash hands outside toilet facility	21.2
	No place to wash hands outside toilet facility	77.3
Education (Population 3 years and Above by School Attendance Status)	Ever Attended	93.3
	Never Attended	5.8
Knowledge of health and nutrition (children aged 0-59 months that participated in Community Nutrition Programmes)	Participated in Community Nutrition Programmes	44.8
	Did not Participated in Community Nutrition Programmes	54.6
Housing and standard of living (house ownership)	Owner Occupier	80.2
	Pays Rent/ Lease	15.4
Access to information (Population Aged 3 years and above by ICT Equipment and Services Used)	Television	37.3
	Radio	86
	Mobile phone	63.8
	Computer	7.9
	Internet	13.8

Data Source: KNBS 2019

1.3 Structure of Bungoma County Economy

Bungoma County Gross County Product (GCP) accounted for 2.1 per cent of total Gross Domestic Product (GDP) between 2013 and 2022 as reported in table 1.1. The GCP increased from Ksh 99,597 in 2013 to Ksh 206,705,509 in 2020 representing an average annual growth rate of 12.5 per cent. The agriculture sector contributes 58.8 per cent of GCP while services and other industries sector share constituted 37.0 per cent and 3.0 per cent, respectively. The services sector includes such activities as wholesale and retail trade. Agriculture is mainly dominated by crop farming and fishing activities while manufacturing is mainly dominated by textile and apparel activities.

Figure 1.1: Structure of the County Economy, 2013-2017



Data Source: KNBS (2021)

1.4 COVID-19 caseload and implications of mobility restrictions

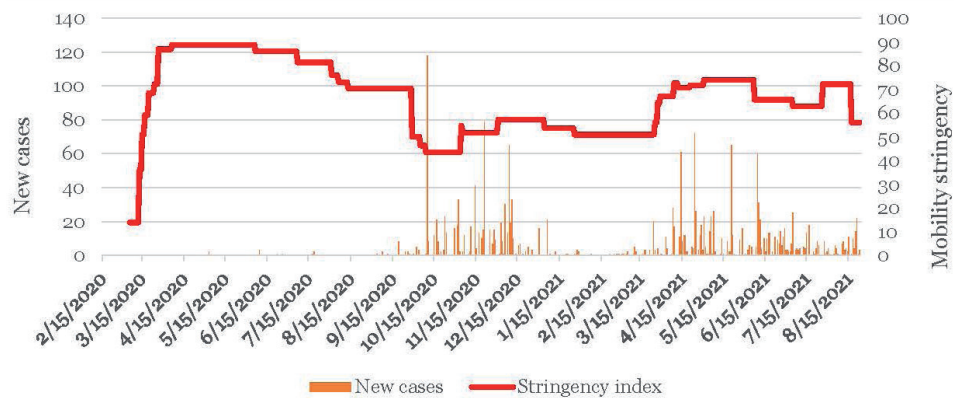
As of March 2020, Bungoma County had zero cases. However, by August 2020, the County had reported 10 COVID-19 cases with mobility stringency of 70.4. The caseload would rise to 1,918 by August 2021 with mobility stringency of 56.0. The mobility stringency index is a composite measure rescaled to a value 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 in Bungoma County and the country's mobility stringency

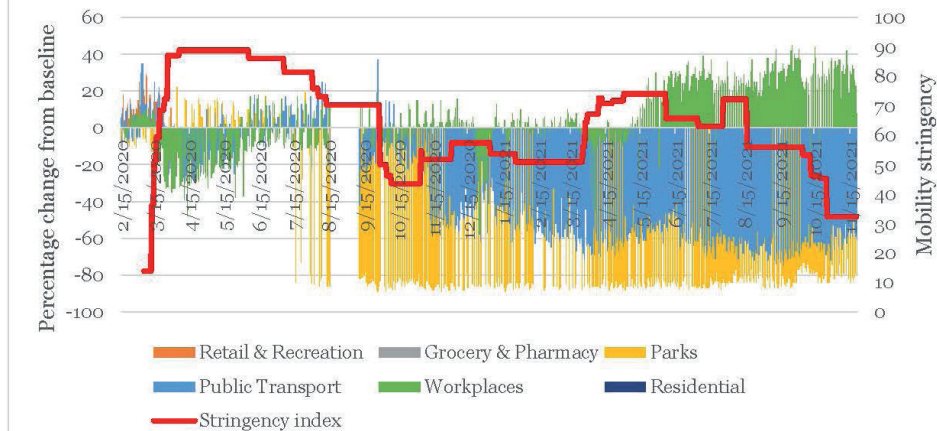
Date	Total cases	Mobility stringency (0-100)
13 th March 2020	0	36.1
23 rd August 2020	10	70.4
23 rd August 2021	1,918	56.0

Data Source: Oxford University

New COVID-19 cases in Bungoma County were highest between September 2020–December 2020 and March 2021–August 2021. During the two time-periods, spikes in new cases in the County were preceded by relaxation of COVID-19 mobility restrictions. Reduction in the County's new cases was similarly preceded by tightening of mobility restrictions.

Figure 1.2: New COVID-19 cases in Bungoma County and the country's mobility stringency

Data Source: Oxford University

Figure 1.3: Effects of COVID-19 Bungoma County Economic performance and the country's 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, planning and budgeting; 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 human resources and chapter 13 concludes the report.

2. Socio-economic effect of COVID-19

2.1 Fiscal policy

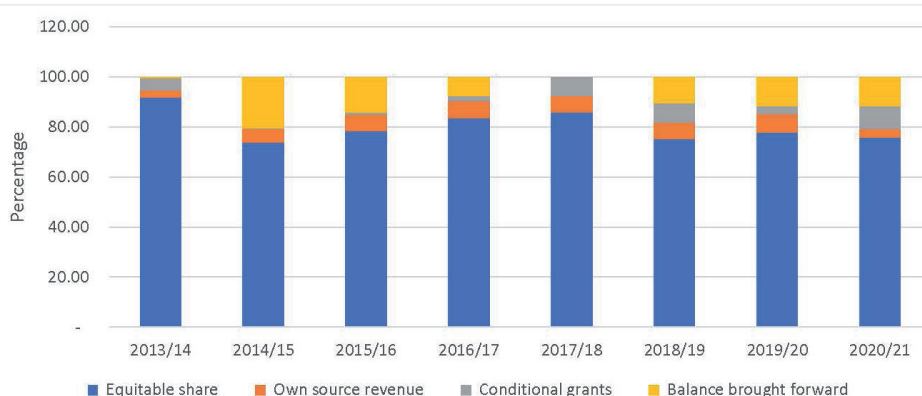
2.1.1 County revenue analysis

Availability of financial resources is 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).

2.1.2 Transfers from National Government

The county's total revenues grew by 80 per cent from Ksh 6.72 billion in 2013/14 to Ksh 12.09 billion in 2019/20, representing an average annual growth rate of 13.3 per cent. The significant growth in total revenues is similarly mirrored in the growth of equitable share from the National government, which contributes the largest share of the county's revenues (figure 2.1). Over the same period, equitable share grew by 44 per cent from Ksh 6.18 billion to Ksh 8.89 billion. This underscores the commitment of the National Government to support county operations. Despite the significant growth in nominal value, its share has been declining over the years as shown in Figure 2.1. This may be attributed to the increase in the contribution of OSR and conditional grants to the total revenue over time. Specifically, the share of OSR increased from 2.72 per cent in 2014 to 7.44 per cent in 2019/20. This accentuates the potential to increase county's total revenues through generation of more OSR as well as conditional grants from development partners.

Figure 2.1: Share of county revenues by source



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

with regard to monthly cash transfers to the county, Bungoma registered a growth of 66 per cent from Ksh 4.11 billion received in January 2020 to Ksh 8.8 billion in June 2020. The significant growth was a welcomed move by the county to aid in budgetary implementations as well as instituting necessary measures to curb the spread of Coronavirus. In comparison to 2019, the county experienced a slight decline during the months of February, May and October. With the COVID-19 pandemic risks faced by the county in 2020, the enhanced monthly transfers during the other months were instrumental for the county to undertake its budgetary operations as well as implement the necessary measures to curb the spread of the COVID-19 virus.

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

	Jan	Feb	Mar	Apr	May	Jun	Oct	Nov	Dec
2021	4,624.10	5,426.19	-	-	-	-	2,664.86	-	-
2020	4,105.98	4,192.65	5,926.92	6,703.41	6,809.19	8,880.66	2,323.31	3,066.41	3,855.46
2019	4,011.85	4,763.35	5,628.19	6,433.60	7,199.52	9,688.56	7,199.52	2,288.47	3,213.75
2018	2,918.51	2,954.34	4,581.39	5,282.03	6,162.74	9,040.35	1,100.98	1,921.07	3,116.95
2017	-	-	4,845.09	5,590.49	6,964.43	8,289.58	613.06	-	-
2016	-	-	4,364.39	5,480.39	6,006.91	6,006.91	-	-	-

Data Source: Gazette Notice (Various issues) *July, August and September data are missing

2.2 Conditional Grants

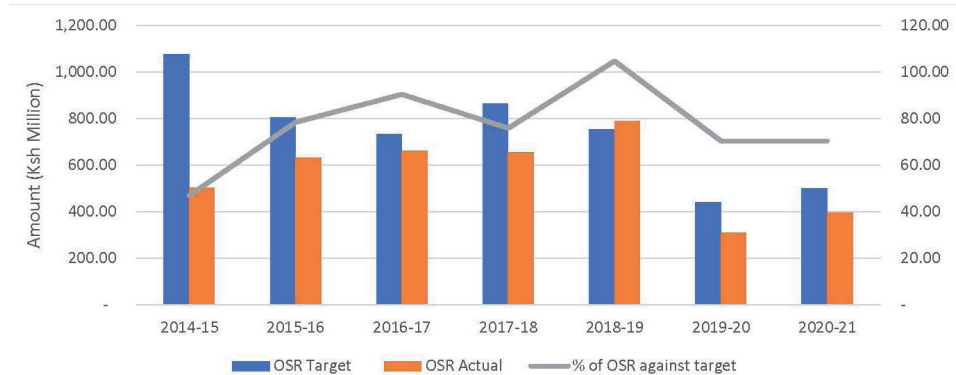
The County receives conditional grants from the National Government and development partners mainly from World Bank, Danish International Development Agency (DANIDA), European Union and Sweden. In FY 2020/21, it received Ksh 430.76 million and Ksh 663.59 million from National Government and Development partners respectively. Analysis indicates that there was a rebound in the share of conditional grants to total revenues from 4.98 per cent during FY 2013/14 to 9.33 per cent in FY 2020/21. Similarly, the nominal value for conditional grants grew from Ksh 334.60 million in FY 2013/14 to Ksh 1.09 billion in FY 2020/21. This indicates a huge potential that the county can tap into to finance its expenditure using conditional grants. Therefore, it is important for the County to maintain the good relationship with the development partners and observe the conditions pertaining the grants.

Own Source Revenue

The contribution of OSR to total revenue averaged 5.10 per cent between FY 2013/14 to FY 2020/21 (figure 2.1). In FY 2020/21, it contributed 3.37 per cent of the County's total revenue, a decline from a high of 6.68 per cent achieved in FY 2016/17. Effects of the COVID-19 pandemic on economic activities partly contributed to the experienced decline. The performance of OSR has been robust, maintaining increasing trends over the years and achieving more than 70 per cent of its annual targets save for FY 2019/20 and FY 2020/21 (figure 2.2). During FY 2020/21, the county collected Ksh 395.12 million which was 27 per cent increase from Ksh 310.98 realized in FY 2019/20. The improved performance was premised on the relaxation of COVID-19 containment measures that revived most

economic activities and full automation of the revenue collection system. However, with the risks posed by the COVID-19 pandemic, the county did not achieve its targets since most of the business, being the key contributors to OSR, were negatively affected.

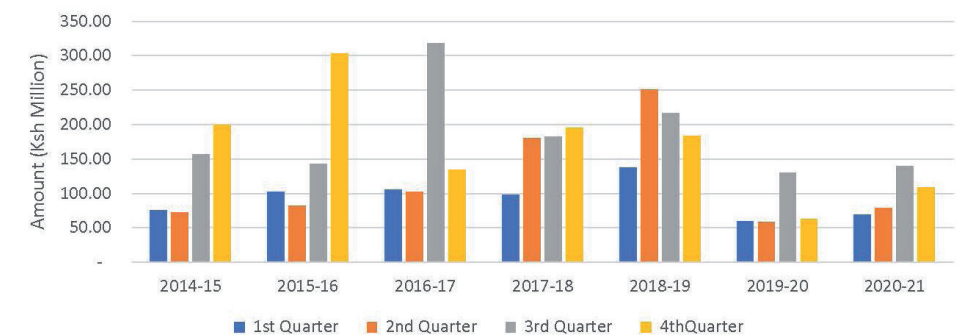
Figure 2.2: Annual Own Source Revenue targets and actual collections



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

Analysis of the quarterly OSR indicate that the county collects most of its revenues during the third and fourth quarter of the year (figure 2.3). This may be attributed to the timeline of single business payments, which elapses on 31st March of every year. During FY 2019/20 the quarterly performance was low as compared to FY 2018/19, premised on the adverse effects of the COVID-19 pandemic. The county extended the payment of single business permit for six months, starting end of March 2020, and an action that reduced the actual collections for the year. The performance for FY 2020/21 mirrors that of FY 2019/20, with little improvement following the easing of containment measures in 2021 that supported the recovery of economic activities.

Figure 2.3: Quarterly Own Source Revenue collection



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

In Bungoma County, revenues from the health facility operations have remained to be the highest contributor to OSR in the last three financial years, contributing an average of 45.82 per cent of the total OSR (table 2.2). Other significant revenue streams include single business permit, vehicle parking fees as well as market fees, contributing on average 31.29, 9.45 and 5.16 per cent respectively. With the outbreak of COVID-19 pandemic, the

various revenue streams were negatively affected following the measures instituted to curb the spread of the virus. For instance, closure of open markets in the county to promote social distancing led to decrease of market fees. In addition, the number of people visiting the hospitals reduced due to fear which negatively impacted the revenues generated by the health facilities.

Table 2.2: OSR streams

	2017/18	2018/19	2019/20	Total
Health facility operations/service	226,352,188	298,026,001	377,319,367	901,697,556
All other OSR sources	259,908,576	190,391,920	155,035,668	605,336,164
Vehicle parking fees	47,131,901	73,717,987	64,504,298	185,354,186
Market/trade Centre fee	31,563,634	34,193,799	35,218,737	100,976,170
Property related revenues	32,258,470	30,708,527	24,897,215	87,864,212
Cesses	17,001,811	18,149,991	20,196,051	55,347,853
Housing	5,149,350	5,402,830	7,682,615	18,234,795
Natural Resource revenues	29,700	3,430	-	33,130
Total	619,395,630	650,594,485	684,853,951	1,954,844,066

Data Source: Bungoma County Treasury office

2.3 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 subnational 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.

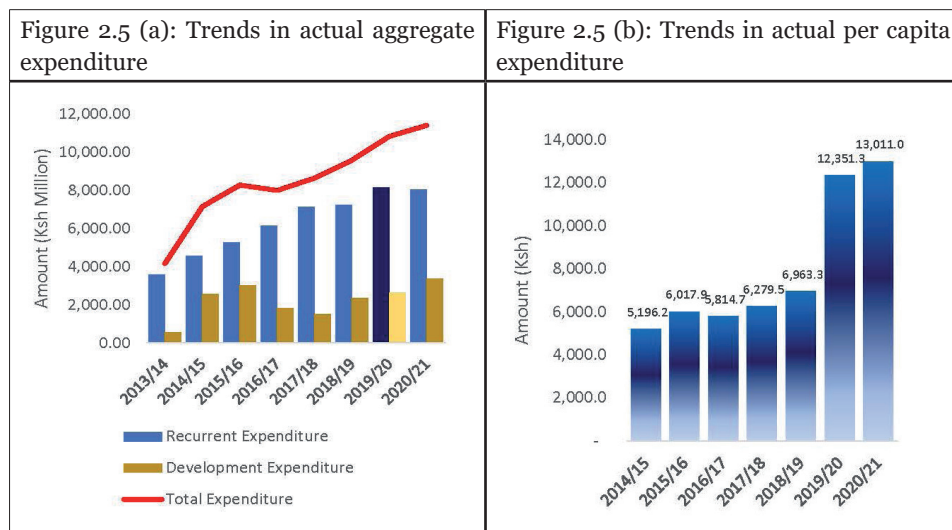
¹ UN General Assembly (2014), p. 22, par. 94.

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 underinvestment which have constrained productive capacity in the local economy.

2.4 Trends and profile of county government expenditures

Over the years, expenditures have 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 enactment of the first full year county budget in FY 2013/14, actual expenditure in the county increased from Ksh 4,160.9 million to Ksh 11,393.6 million in FY 2020/21 (Figure 2.5). This translates to over 130 per cent increase in county spending over the period. Cumulatively the county has spent a total of Ksh 67.9 billion between FY 2013/14 and FY 2020/21. This comprises of a cumulative Ksh 50.1 billion and Ksh. 17.9 billion on recurrent and development expenditures representing 73.7 per cent and 26.3 per cent of the cumulative expenditure respectively. This signals that more development expenditure is required to support deepening of capital spending in the county.

Figure 2.4: Trends in the County 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 shown upward growth over the period. In FY 2013/14, per capita spending in Bungoma county was about Ksh. 5,196.2 compared Ksh. 12,351.3 in 2019/20 and further to Ksh 13,011.0 at the end of FY 2020/21. Between FY 2013/14 and FY 2020/21 per capita spending averaged Ksh. 7,947.7.

2.5 Utilization of public resources in the county

Analysis of expenditures by economic classification and by departments (spending priorities) reveal interesting insights. It is evident that since inception of devolution, Bungoma county government prioritized narrowing the economic and social infrastructure gaps. Much of government development expenditures has been dominant in provision of health services, public works, transport and infrastructure, agriculture, education and ECDE projects as well as water and sanitation services. The county government did remarkably well in FY 2014/15 and FY 2015/16 when development expenditure was above the 30 per cent of its total expenditure portfolio as represented in Figure 2.6. In the years that followed the share of development expenditure performed below 30 per cent averaging 23.8 per cent between FY 2016/17 and FY 2020/21. The figure also portrays that at the onset of devolution in FY 2013/14 development expenditure only accounted for 13.8 per cent of county expenditure. On the other hand, county compensation of employees has been burgeoning between FY 2013/14 and FY 2020/21. The average share of compensation of employees in total county budget over the review period was 43.2 per cent. Surprisingly in FY 2017/18 compensation of employees exceeded half of the county expenditure accounting for 53.7 per cent of the budget.

Figure 2.5: County government expenditure by economic classification (per cent of total county government expenditure



Data Source: Office of the Controller of Budget

Reflecting on expenditures by functional classification (priority spending), the county spent a combined average of 65.4 per cent of the total expenditure during the period FY 2014/15 to FY 2020/21 on health services; roads and public works; education and science; and agriculture, livestock, fisheries, and cooperatives. Spending on health and sanitation services accounted for the largest share of average expenditure at 24.8 per cent. Roads and public works accounted for 11.9 per cent of total spending, followed by education, science, sports, and youth affairs 10.6 per cent while agriculture, livestock, fisheries, and cooperatives followed closely at 7.7 per cent. Further during the review period co-ordination and administrative functions accounted for a combined 34.6 per cent with finance and economic planning leading at 14.4 per cent, county assembly 9.5 per cent, county executive (office of the governor, office of deputy governor and county secretary) 4.8 per cent while public service accounting for 0.5 per cent.

Table 2.3: Priority spending, FY 2014/15- FY 2020/21

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	Average	per cent share of total spending
	Ksh Mn	Ksh Mn	Ksh Mn	Ksh Mn	Ksh Mn	Ksh Mn	Ksh Mn	Spending Ksh Mn	
Health & Sanitation	1,620.0	1,533.9	2,061.9	2,299.5	2,236.9	3,092.0	2,968.2	2,258.9	24.8
Finance and Planning	1,024.1	2,083.8	1,224.1	1,336.7	1,218.9	1,137.3	1,140.1	1,309.3	14.4
Roads and Public Works	849.7	937.3	1,002.4	768.1	1,325.8	1,234.8	1,457.5	1,082.2	11.9
Education, Science, Sports and Youth Affairs	570.2	604.3	593.6	1,236.7	1,209.3	1,225.7	1,312.7	964.6	10.6
County Assembly	693.6	718.0	925.8	839.0	917.3	1,022.4	968.1	869.2	9.5
Agriculture, Livestock, Fisheries and Co-operatives	653.3	723.6	617.8	629.5	681.42	815.5	819.91	705.9	7.7
Public Administration	632.4	430.3	362.1	460.2	461.1	359.7	714.6	488.6	5.4
County Executive	221.7	381.8	426.5	395.4	440.0	725.3	449.3	434.3	4.8
Tourism, Forestry, Environment, Water & Natural Resources	141.8	315.7	247.9	233.8	472.9	378.2	519.5	330.0	3.6
Land, Urban, Physical Planning and Housing	378.0	42.3	257.5	139.6	299.4	419.6	532.7	295.6	3.2
Gender, Culture, Youth and Sports	193.8	82.5	86.0	94.7	114.8	268.1	336.3	168.0	1.8
Trade, Energy and Industrialization	113.1	385.2	139.7	142.3	142.5	93.2	120.2	162.3	1.8
County Public Service	53.5	36.4	47.0	55.0	50.8	44.2	54.7	48.8	0.5
Total	7,145.1	8,275.0	7,992.2	8,630.6	9,571.0	10,815.9	11,393.6	9,117.6	100.0

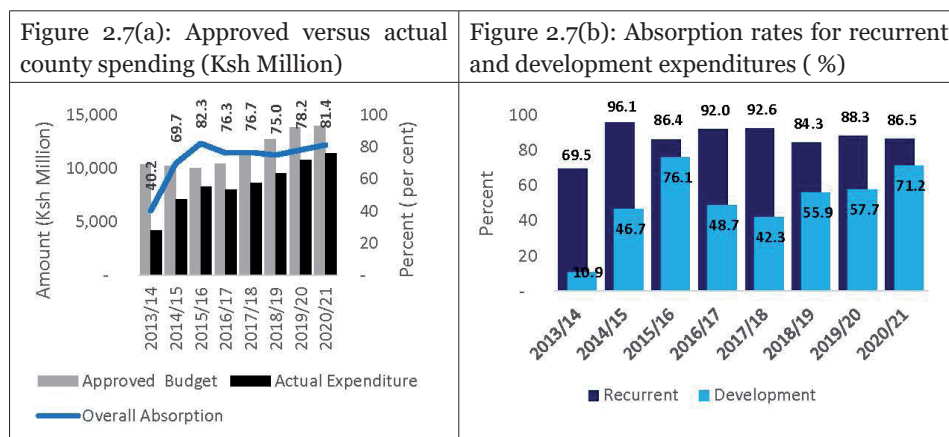
Data Source: Office of the Controller of Budget

2.6 Effectiveness of County spending

Total budget execution averaged 72.5 per cent in the period FY 2013/14 to FY 2020/21. In FY 2013/14, budget execution rate was 40.2 per cent. This execution improved to 82.3 per cent in FY 2015/16 and thereafter deteriorated in 2018/19 with an execution rate reaching

only 75.0 per cent followed by a slight improvement in FY 2019/20 when the rate stood at 78.2 per cent and 81.4 per cent in FY 2020/21. This means that only Ksh. 11,393.6 million was utilized out of the Ksh. 14,002.9 million in FY 2020/21. With regards to development budget execution in the county, the average absorption rate for development expenditure was 51.2 per cent (implying that on average over 48.8 per cent of the development budget is not absorbed). This is a major budget implementation weakness, and the county to continue tightening budget implementation to ensure achievement of greater absorption rates to keep help achieve the targets in ADPs and the CIDP. Contrary, on recurrent expenditure, the execution has been robust over the years; the average absorption rate was 87.0 per cent, leaving about 13.0 per cent in unspent recurrent budget.

Figure 2.6: Effectiveness of County spending

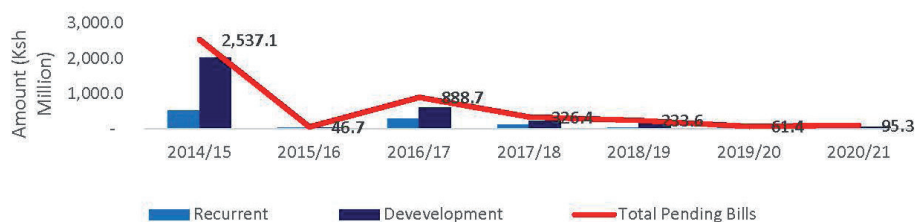


Data Source: Office of the Controller of Budget

Pending Bills

Pending bills in Bungoma county have generally been on a declining path coming from Ksh. 2,537.1 million in FY 2014/15 to Ksh. 233.6 million in FY 2018/19 before declining further to Ksh. 95.3 million in FY 2020/21. The average development and recurrent expenditure related pending bills was Ksh 447.1 million and Ksh 151.3 million respectively during the FY 2014/15 to FY 2020/21 period. If pending bills for development spending were paid in their respective fiscal year, the execution of development budget in subsequent years would improve

Figure 2.7: Profile of county pending bills



Data Source: Office of the Controller of Budget

To achieve its overall goal of improving lives and livelihoods in the county, 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.

2.7 Recommendations

- i) To steer the county towards achieving its budgetary objective and development goals contained in the ADPs and CIDP, the following measures are proposed:
- ii) Mobilize more finances from OSR to increase the available revenues for budgetary operations.
- iii) Seek for more funding in form of grants from development partners to cater for the critical development projects in the county.
- iv) Ensure that the ongoing projects are completed before launching new project and clear any pending bills and arrears owed to suppliers.
- v) 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.
- vi) Improve budget execution and absorption of development budget by harmonizing project implementation cycles to budgeting and fast-track exchequer releases.
- vii) 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.
- viii) 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 Bungoma County. More than a half of County economic activity is driven by the agriculture sector. In 2017, agriculture accounted for Ksh 107,829 million out of the total Ksh 183,509 million Gross County Product (GCP) amounting to 58.8 per cent of the County's GCP.

Over 75 per cent of the households in Bungoma County practice farming. About 75 per cent of the households produce crops, 55 per cent produce livestock, 0.43 per cent practice aquaculture and about 0.54 per cent are involved in fishing. About 1.76 per cent of the households practice irrigation farming.

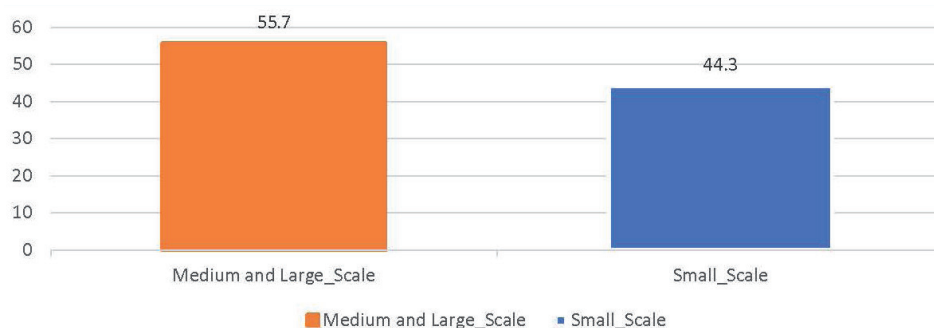
Table 3.1: Distribution of Households Practicing Agriculture, Fishing and Irrigation by County and Sub County

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
Bungoma	358,796	280,445	269,979	197,318	1,530	1,944	6,310
Bumula	44,954	39,540	38,672	28,094	290	240	488
Bungoma Central	37,803	31,835	30,921	23,232	153	230	738
Bungoma East	24,873	19,688	18,959	13,687	74	171	442
Bungoma North	24,998	20,848	20,059	14,982	118	184	386
Bungoma South	69,151	41,443	39,568	27,199	266	285	812
Cheptais	26,326	22,457	21,804	15,645	139	120	1,155
Kimilili	35,263	25,205	24,062	16,303	131	176	767
Mt. Elgon	15,276	12,376	11,738	9,328	49	56	392
Bungoma West	25,172	22,145	21,615	16,244	102	97	320
Tongaren	21,343	17,578	16,842	12,415	88	131	299
Webuye West	32,839	26,624	25,732	19,484	120	249	511
Mt. Elgon Forest	798	706	7	705	-	5	-

Source: 2019 Kenya Population and Housing Census

Regarding scale of production, we follow the FAO criterion on land size 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, about 44.3 per cent of the farming households in Bungoma 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

Classified in the Western - High Population Density, Mixed Staples and Cash agroecological zone as per the Agricultural Sector Transformation and Growth Strategy (ASTGS) 2019-2029, crop production is key in the County. An overall analysis of the County agricultural production indicates among the top food crops produced by households in Bungoma include maize, beans, bananas, sweet potatoes, kales, ground nuts, cassava, sugarcane, potatoes, sorghum, millet, and green grams

Table 3.2: Distribution of Households Growing Crops by Type, County and Sub County

County/Sub County	Kenya	Bungoma	Bumula	Bungoma Central	Bungoma East	Bungoma North	Bungoma South
Maize	5,104,967	262,063	38,051	30,119	18,256	19,517	38,314
Sorghum	904,945	28,889	4,807	4,485	1,493	1,824	4,726
Rice	50,484	-	-	-	-	-	-
Potatoes	1,170,170	40,882	6,096	4,099	1,926	1,777	6,361
Beans	3,600,840	222,747	33,223	27,450	14,731	15,116	31,823
Cassava	1,050,352	72,760	16,773	8,297	3,953	4,526	12,916
Sweet Potatoes	1,134,102	102,940	16,223	12,083	8,274	7,683	17,632
Wheat	67,720	7,644	1,004	1,241	595	454	1,084
Green grams	571,426	20,851	1,814	4,436	1,149	693	2,372
Bananas	2,139,421	160,195	19,850	20,570	11,893	12,888	22,809
Cabbages	490,588	11,059	855	864	512	606	1,227
Tomatoes	410,224	19,364	2,703	1,723	864	825	3,173

Onions	707,182	17,992	1,510	1,065	746	615	2,177
Ground Nuts	480,812	93,242	17,551	17,003	6,043	2,677	17,721
Millet	540,353	27,667	3,610	4,904	2,087	1,754	3,707
Watermelons	84,077	2,975	645	343	184	130	499
Kales	1,916,898	96,113	11,074	9,915	7,232	6,828	15,569
Sugarcane	654,468	57,105	4,496	5,455	7,810	6,078	12,199
Cotton	22,920	2,169	462	242	115	94	403
County/Sub County	Cheptais	Kimilili	Mt. Elgon	Bungoma West	Tongaren	Webuye West	Mt. Elgon Forest
Maize	20,639	23,336	11,157	21,201	16,498	24,971	4
Sorghum	975	2,139	725	2,853	1,351	3,511	-
Rice	-	-	-	-	-	-	-
Potatoes	7,171	2,304	4,516	2,344	1,450	2,836	2
Beans	17,980	19,458	8,908	19,429	13,273	21,356	-
Cassava	2,356	5,118	915	6,575	2,848	8,483	-
Sweet Potatoes	3,228	8,562	1,661	7,261	6,384	13,949	-
Wheat	547	547	215	461	577	919	-
Green grams	952	1,769	107	3,689	289	3,581	-
Bananas	10,749	15,762	5,738	13,195	9,655	17,086	-
Cabbages	3,274	874	1,132	585	554	576	-
Tomatoes	3,462	932	428	2,824	849	1,581	-
Onions	6,569	786	1,638	831	667	1,388	-
Ground Nuts	1,909	6,938	281	9,058	993	13,068	-
Millet	485	2,002	1,384	2,162	1,605	3,967	-
Watermelons	113	267	60	338	156	240	-
Kales	8,831	7,785	3,901	7,965	5,946	11,067	-
Sugarcane	697	3,861	543	1,001	1,805	13,160	-
Cotton	135	187	47	236	91	157	-

Source: 2019 Kenya Population and Housing Census

3.1.1 Key permanent crops among households in Bungoma include Avocado, Mangoes and Coffee.

Table 3.3: Distribution of Households Growing Permanent Crops by Type and County

County/Sub County	Tea	Coffee	Avocado	Citrus	Mango	Macadamia
Bungoma	2,047	37,773	73,765	5,268	54,581	2,428
Kenya	476,613	478,936	966,976	177,445	796,867	195,999

Source: 2019 Kenya Population and Housing Census

Resource productivity is another key important factor in determining the agro-processing potential (scale) of the County and would have a great impact on farmers' incomes and the County's GCP. An assessment of horticultural productivity indicates Bungoma's value of fruits production in 2019 amounted to Ksh 3.6 billion. The area under fruit was 131.4 million Ha with a production of 9.8 million MT. The major fruits grown in order of value importance are; macadamia nuts, banana, avocado, purple passion fruits, ground nuts, and pawpaw.

Table 3.4: Fruits Grown in Bungoma County

Type of Fruit	Area in Ha	Production in Tons	Value in Shillings
Macadamia Nuts	2476	12519	2,501,500,000
Banana	3321	38187.5	498,538,276
Avocado	463.5	7450	172,800,000
Purple Passion Fruits	126	502755	143,760,010
Ground Nuts	130951380	8650784.6	83,260,640
Pawpaw	157	602341	72,220,040
Mango	244.5	2081	61,227,500
Watermelons	41	686	20,408,000
Pineapples	400011.5	153	2,900,000
Bambara Groundnuts	6	10.8	2,700,000
Guavas	26	257	2,420,000
Loquats	4	29	490,000
Lemons	3.75	22	440,000
White Sapote	6.5	20	125,000
Total	131,358,267	9,817,296	3,562,789,466

Source: Agriculture and Food Authority, 2019

In 2019, the value of vegetables production in the County amounted to Ksh 3.7 billion. The area under vegetables was 31.2 million Ha with a production of 40.8 million MT. The major vegetables grown in order of value importance are tomatoes, potato, cabbage, cowpea and spider plant.

Table 3.5: Vegetables Grown in Bungoma County

Type of Vegetables	Area in Ha	Production in Tons	Value in Shillings
Cucumber	0.7	4	250,000
Courgettes/Squash/Marrow	0.7	4	250,000
Bell Pepper/Sweet Paper	2.5	12	550,000
Egg Plant	1.5	13	950,000
Grain Amaranth	26	26	1,300,000
Butter Nut	18.2	46	1,599,000

French Beans	3	60	2,400,000
Snow Pea	3	49	2,450,000
Jute Mallow/Mrenda	20.2	82	2,920,000
Spinach	19.5	165	5,480,000
Pumpkin Leaves	550066	800,217	5,800,027
Garden Peas	24	348	11,240,000
Leaf Amaranth	600096	1,500,374	12,280,052
Slenderleaf/Rattlepod/ Mitoo	34	439	22,583,000
Pumpkin Fruit	200057.5	200,733	24,160,021
Carrots	200090.5	201,672	33,393,021
African Nightshade	2450384	6,601,854	52,524,531
Kales	9071377	5,005,542	53,770,830
Spider Plant	400195	2,001,733	57,030,041
Cowpea	3000450	2,702,269	73,700,191
Cabbage	2540936	3,010,224	105,660,560
Potato	2078.5	44,540	997,325,000
Tomato	12181232	18,747,481	2,259,800,627
Total	31,197,116	40,817,886	3,727,416,901

Source: Agriculture and Food Authority, 2019

In 2019, the value of MAPs production in the County amounted to Ksh 480 million. The area under MAPSs was 6.8 million Ha with a production of 8.8 million MT. The major MAPs grown are Bulb Onion, Spring Onion/Green Shallots, chillies and garlic.

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

Type of Medicinal and Aromatic Plants (MAPs)	Area in Ha	Production in Tons	Value in Shillings
Corriander	250,016	250,027	375,011
African Birds Eye [Abe] Chillies	18	108	4,860,000
Garlic	10	124	7,000,000
Long Cayenne Chillies	42	300	13,800,000
Spring Onion/Green Shallots	500,193	502,679	62,690,011
Bulb Onion	6,000,966	8,012,025	391,625,365
Total	6,751,245	8,765,263	480,350,387

Source: Agriculture and Food Authority, 2019

Floriculture is a key subsector in the agriculture sector and a major contributor of foreign exchange after diaspora, tourism and tea. The flowers mainly grown in Bungoma County are Sunflowers. In 2019, the value of sunflowers produced in the County amounted to Ksh 450,000. The area under flowers was 10Ha with a production of 18 MT.

Table 3.7: Flowers Grown in Bungoma County

Type of Flowers	Area in Ha	Production in Tons	Value in Shillings
Sunflower	10	18	450,000

Source: Agriculture and Food Authority, 2019

Animal production is also key economic activity in Bungoma County. Other than rearing the traditional livestock (i.e. cattle, sheep, and goats), the County has promoted poultry production, pig, donkey 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	Bungoma	Bumula	Bungoma Central	Bungoma East	Bungoma North	Bungoma South
Exotic cattle -Dairy	939,916	32,344	2,940	4,082	2,272	3,128	5,165
Exotic cattle -Beef	167,625	5,254	596	607	350	454	707
Indigenous cattle	2,260,439	113,733	17,744	12,965	8,331	8,399	14,109
Sheep	1,299,893	25,103	1,592	2,254	1,391	3,072	1,722
Goats	1,898,887	40,859	7,213	5,047	2,079	1,615	6,598
Camels	167,666	-	-	-	-	-	-
Donkeys	500,682	4,094	69	210	3	9	120
Pigs	110,383	5,377	1,776	688	305	186	671
Indigenous Chicken	3,337,700	161,433	23,086	19,039	11,284	12,663	22,116
Exotic Chicken Layers	194,517	6,497	963	683	331	610	977
Exotic Chicken Broilers	79,461	2,341	375	241	119	216	360
Beehives	201,406	3,247	161	212	281	310	251
Rabbits	124,122	2,587	289	432	234	191	374
Fishponds	22,019	1,408	265	136	69	111	248
Fish Cages	3,361	217	30	21	12	11	34
County/Sub County	Cheptais	Kimi-lili	Mt. Elgon	Bungoma West	Tong-aren	Webuye West	Mt. Elgon Forest
Exotic cattle -Dairy	2,431	3,546	1,504	1,656	2,453	3,166	1
Exotic cattle -Beef	578	612	192	297	354	507	-
Indigenous cattle	9,257	8,484	6,524	9,483	6,142	11,677	618
Sheep	3,266	2,335	2,817	1,179	3,359	1,583	533
Goats	3,141	2,334	1,746	6,046	928	3,781	331
Camels	-	-	-	-	-	-	-
Donkeys	2,191	54	970	176	21	8	263
Pigs	453	210	53	336	135	564	-
Indigenous Chicken	12,333	12,652	7,231	13,724	10,576	16,214	515
Exotic Chicken Layers	508	569	217	467	539	632	1
Exotic Chicken Broilers	145	207	50	96	223	309	-

Beehives	579	150	408	141	236	172	346
Rabbits	68	234	71	159	116	418	1
Fishponds	116	126	46	93	84	114	-
Fish Cages	47	15	4	18	12	13	-

Source: 2019 Kenya Population and Housing Census

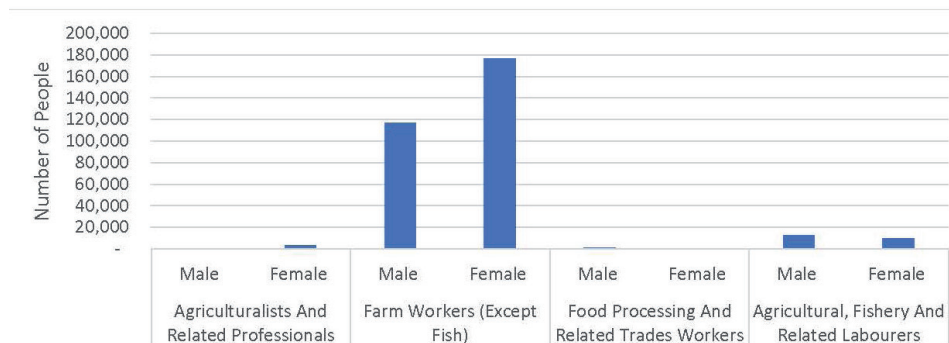
The above characterization of farming households highlights the priority value chain opportunities in maize, beans, bananas, sweet potatoes, kales, ground nuts, cassava, sugarcane, potatoes, sorghum, millet, green grams, Avocado, Mangoes, Coffee, cattle, sheep, goats, poultry production, pig, donkey, and bee keeping (apiculture). With majority of the households farming the identified products, the current Bungoma transformation strategy in agriculture should prioritize value chains in the identified areas to positively impact of households’ livelihoods.

3.2 Agri-Food Challenges in COVID-19

3.2.1 Human capital/employment levels – by gender

Agricultural labor participation in Bungoma indicates relative parity between females and males with no strong dominance of either gender in the labor force. Majority of the population in Bungoma 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).

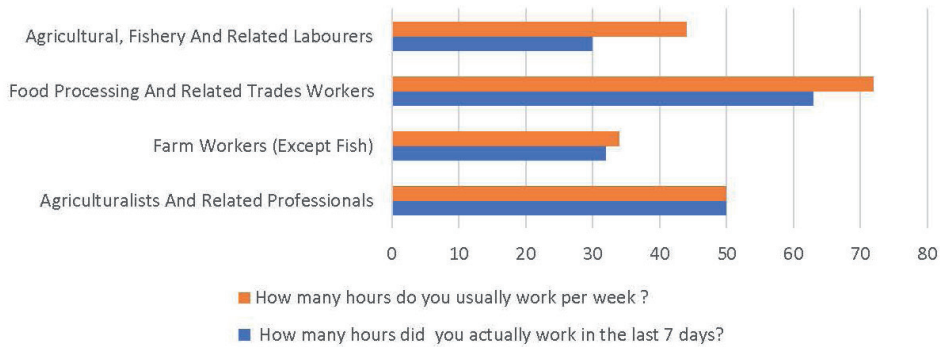
Figure 3.2: Agriculture Related Labor Force Participation



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 almost all the identified sub-sectors above worked fewer hours in the reference period as compared with the usual hours worked per week. The most affected workers are the agricultural, fishery and related labourers who recorded the highest difference of 14 hours between the usual and actual hours worked in a week. The workers in this sub-major group include Farm-hands and Related Labourers; Forestry Labourers; and Fishery, Hunting and Trapping Labourers

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

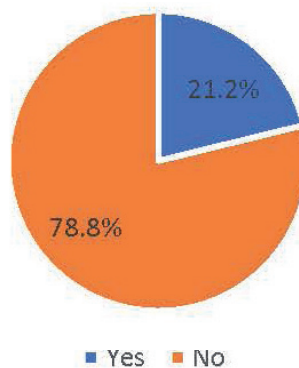
The identified Covid_19 effects on labour force participation are likely to have negative effects on output thereby increasing yield gaps.

3.2.2 Market operations

Successful transformation of smallholder agricultural production in Bungoma 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 further slow down on trade activities due to the restrictions on movements. From the KNBS conducted between 30th May and 6th June 2020, 21.2 per cent of the households in Bungoma County indicated over the past 1 week there had been instances where the household or a member of the household could not access the markets/grocery stores to purchase food items.

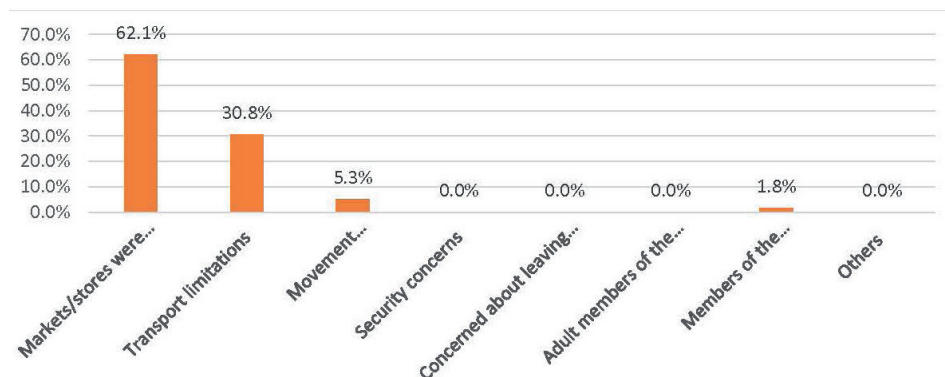
Figure 3.4: Limited access to markets to purchase food items



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

Majority of the households indicated the key reasons for not accessing the markets/grocery stores to purchase food items were closure of the markets/grocery stores (62.1%), transport limitations (30.8%) and movement restrictions (5.3%).

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

Livestock trade has especially been majorly affected as traders are unable to take the livestock to the market.

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. 88 per cent of households in Bungoma County indicated that over the past 2 weeks from the reference period, while 10 per cent indicated that they had not experienced a change in the prices.

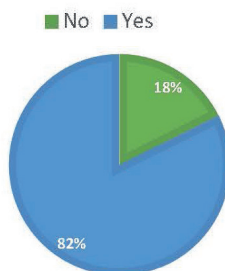
Figure 3.6: Percentage of households experiencing change in food commodity prices



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

On the magnitude of the price shocks, 82 per cent of the households indicated they faced a large rise in food prices in the past two weeks from the reference period.

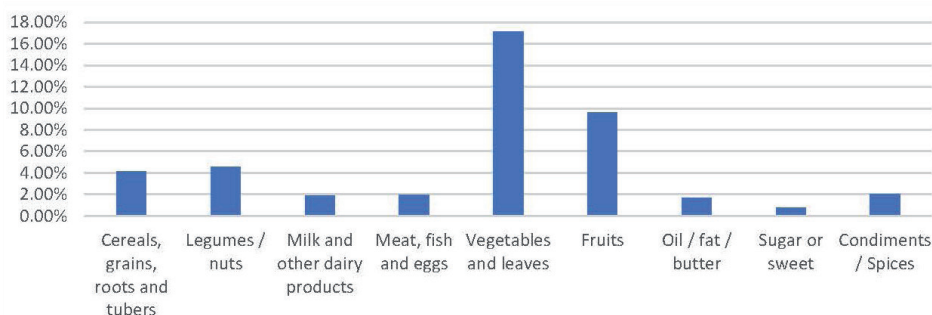
Figure 3.7: Proportion of households facing large food price shocks



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: per cent Households reporting that the following food items were not readily available in their locality

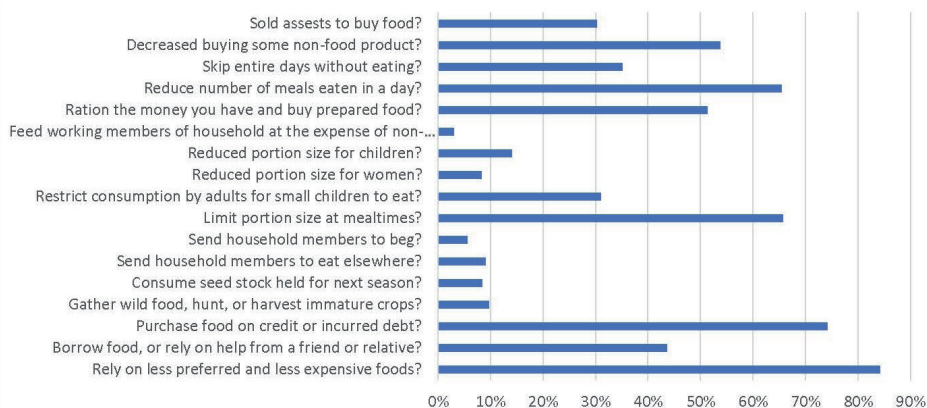


Source: KNBS Survey on Socio Economic Impact of COVID-19 on Households-Wave 2

While access to all food groups were affected as shown in the figure above, a key concern is that the food groups affected most are the nutritious food categories-vegetables 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 (84.3%), purchase food on credit or incurred debt (74.1%), limit portion size at mealtimes (65.8%) and reduce number of meals eaten in a day (65.5%).

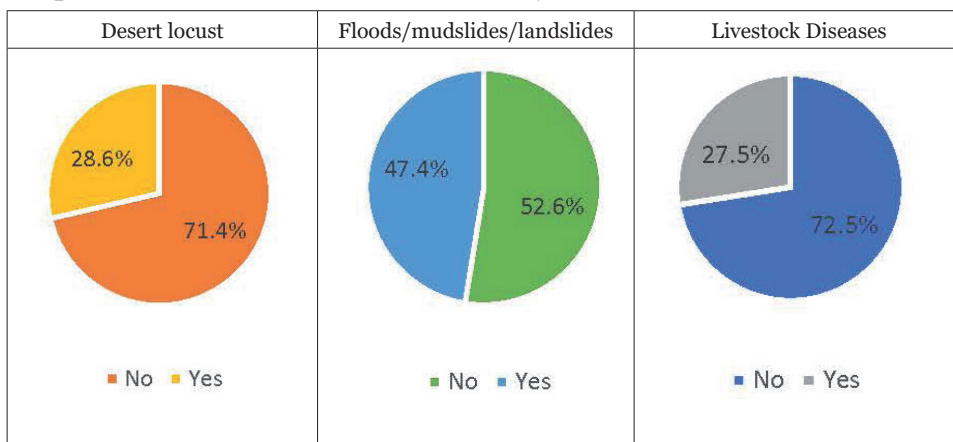
Figure 3.9: per cent of households where the following strategies were adopted for at least one day



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

Additional significant challenges faced by the County Covid pandemic period include Desert locusts (28.6 %); Floods/ Mudslides/ Landslides (47.9 %); and Livestock Diseases (27.5 %).

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



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

3.3 Agri-Food Constraints Faced in the County

Among the Key Constraints the County faces include:

- Variable and extreme weather events which have increased in frequency and intensity over the years adversely affecting crop and livestock production
- Pests and livestock diseases affecting agricultural and livestock productivity.
- Farmers low access to quality and affordable inputs including certified seeds, water,

animal feeds, artificial insemination (AI) services, fertilizers, livestock vaccination and mechanized ploughing services by County tractor hire services

- d) Low crops, livestock, and livestock products marketing opportunities necessary for improved incomes
- e) Low commercialization of farming where majority of farmers practice farming for subsistence purposes and as a hobby rather than a business. One way is through adoption of high value cash crops (coffee, macadamia and tea).
- f) Low adoption of high value crops that would increase farmers returns
- g) Low agro-processing and value addition opportunities among small scale farmers
- h) Slow uptake of digital platforms to market agricultural produce.
- i) Need to enhance/ revive extension services in the County
- j) Desert locust infestation, Floods/ Mudslides/ Landslides, and Livestock Diseases
- k) Dependence of rain fed agriculture despite frequency in extreme climate conditions, such as, drought episodes
- l) Farm losses and post-harvest waste.

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

3.4 Opportunities with COVID19 in various sectors

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

- Businesses/ MSMEs: Businesses and MSMEs are crucial in providing inputs and requirements to the agricultural sector.
- Transport, Storage and ICT sectors
- Financial and insurance activities
- Accommodation Food services
- 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:

Increase the area under sustainable and efficient irrigation for improved yields especially with increased drought episodes experienced in the County and country at large.

- i. Provision of affordable and quality inputs to include fertilizers and seeds.
- ii. Developing County-private partnership in enhancing agroprocessing and value addition capacities of the County and linking farmers to product markets.

- iii. Improved Management of Livestock Diseases, Floods and Desert Locusts
- iv. Storage and cooling facilities including at collection points/centers
- v. Investments to enhance water harvesting, sustainable and efficient irrigation.
- vi. Adoption of natural resource management to include soil and water conservation, tree planting, and changing of crop type.
- vii. Uptake of digital platforms to: build capacities of farming households in modern agricultural technologies; and market agricultural produce
- viii. Improving market opportunities by selecting the right value chains. This will encourage farmers to shift production from subsistence to market-oriented output.
- ix. Adoption of drought resistant livestock pastures/fodder and fodder and feed conservation
- x. Rearing livestock breeds adapted to drought and promotion of drought resistant and early maturing crops
- xi. Strengthening farmers' associations and cooperatives as an additional solution to marketing challenges
- xii. Enhance supportive services to include early-warning systems, insurance and credit products, extension advisory and information services, training, fodder conservation and value addition.
- xiii. Improved crop and livestock emergencies surveillance systems in the County.

3.5 Emerging Issues

- i. Environmental degradation as a result of both human and non-human-related activities such as extreme climate conditions. Environmental degradation has reduced productive capacity of farms leading to increased risks to food insecurity and reduced farmers income and ultimately increased poverty levels within the County.
- ii. Climate change, manifested in increased frequency and intensity of extreme weather conditions such as floods, droughts and pest invasion.

3.6 Recommendations

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

- i) Develop partnership with the National Government, NGOs, Development Partners, Research Institutions and the Private sector in enhancing agro-processing and value addition capacities of the County as envisioned in the national Agricultural Transformation and Growth Strategy (ASTGS).

- ii) Minimize spoilage and post-harvest losses, investments in storage and cooling facilities particularly at collection points will complement efforts in agro-processing and value addition in increasing the shelf life of perishable products.
- iii) Promote uptake of digital platforms to: Training and building capacities of farming households in modern agricultural technologies, Provision of Advisory and information services, Marketing agricultural produce, and Improving access to innovative support services including credit and insurance services.
- iv) Enhance 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.
- v) Establish programmes for surveillance of disasters such as extreme weather conditions at the County level equipped with relevant technical specialists and finances to effectively prevent, 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.
- vi) Organize sensitization programmes and enhance farmers ability to adopt sustainable land management practices to minimize environmental degradation. This can be achieved through establishing centers for demonstration of appropriate land use will be fast tracked.
- vii) Invest in sustainable irrigation in the County through partnership with development partners. To support expansion of sustainable irrigation, there is need to promote development of Irrigation Infrastructure and technologies in the County as envisioned in -the County's CIDP 2018-2022 plan.
- viii) Strengthen agricultural cooperatives through effective stakeholder engagement and implementation of interventions for more sustainable models of financing and customized training of cooperative members.

4. Water Sanitation and Hygiene

4.1 Characteristic of the sector

The county has adequate water sources which includes 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 four urban and six rural water supply schemes. The urban schemes are mainly piped and are operated by Lake Victoria North Water Services Board through the water service provider - Nzoia Water and Sanitation Company. Rural water schemes are operated by the County Water Department through its field water officers². The country has no sewerage treatment plant therefore most of the households tend to use pit latrine as well as septic tank

4.2 Measure to mitigate the effect of COVID-19 under Water and Sanitation and hygiene

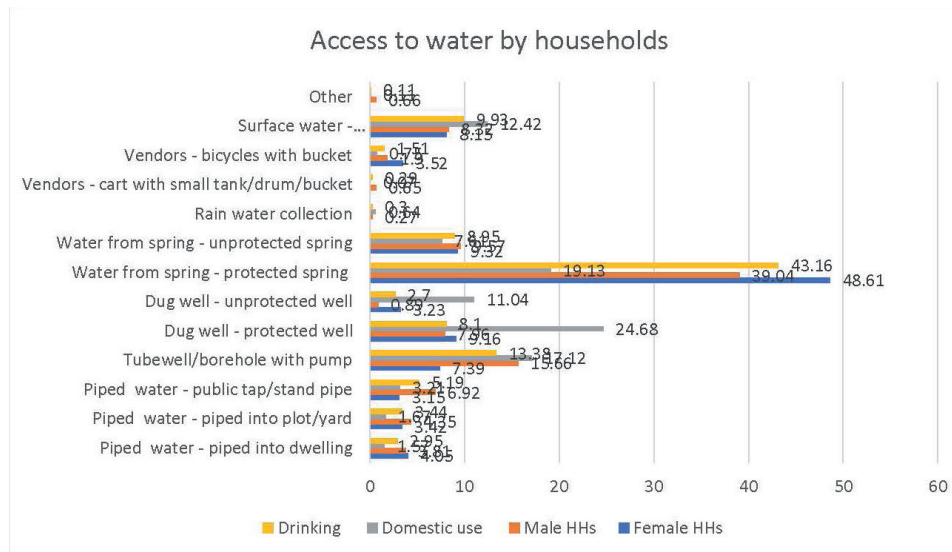
The county did a supplementary budget by allocating some funds to support venerable members of the community and about 6000 households have been cushioned. The department of water has also made efforts by distributing clean water. There is normal distribution of water throughout however, they have had challenges occasioned by the road construction leading to pipes bursting. The county has also acquired a drilling machine to reduce the costs as opposed to hiring some contractors.

4.3 Access to source of water by households

The major source of water for drinking utilized by households in the county are water from protected springs (43.2 %), borehole water with pump (13.4 %) and surface water (9.9 %). Similarly, both male (39 %) and female (48 %) headed households uses water from protected springs. Access to piped water (public tap/stand) remains low among households (5.2 %).

² Bungoma County 2018-2022 CIDP

Figure 4.1: Access to source of water by households



Source: KNBS 2015/2016

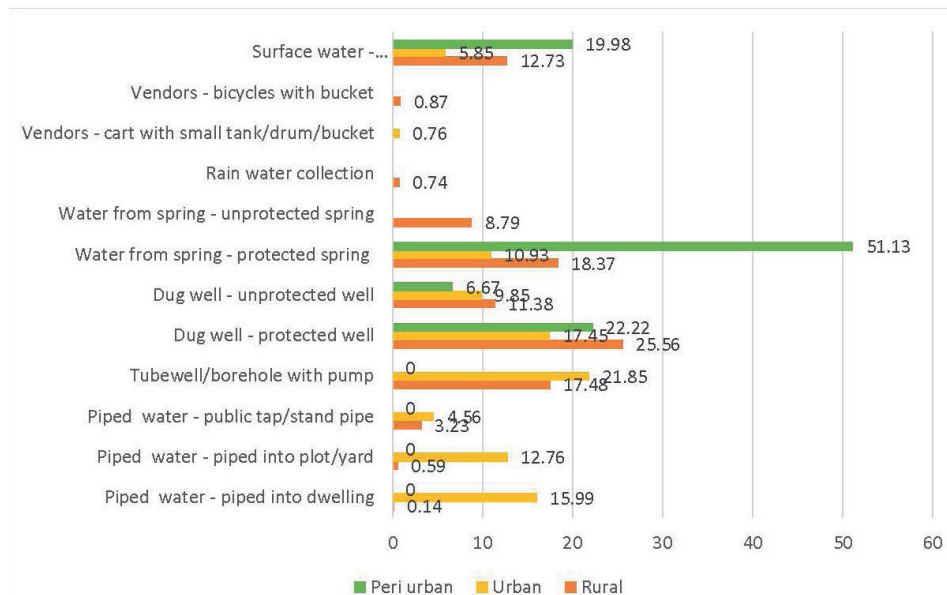
Combating COVID-19 pandemic has already placed high demand for water for both domestic usage in households, health care institutions, learning institutions, marketplaces and other public places. Water also remains important to other sectors of the economy such as agriculture and industrial usage. With the planned re-opening of schools and upcoming low rain seasons means that the pressure on water resources will be high, this therefore means that the demand for water will be high and if the supply will be low, households are likely to fail to observe COVID-19 prevention measures of hand washing which may in turn lead to high transmission of COVID-19.

To ensure continuity of quality water supply, the county needs to invest in water harvesting and storage facilities both at household and institutional level, this may include supporting schools in building rain harvesting and storage structures in schools from the school structure rooftops, supporting households in rainwater harvesting during rainfall times. Other interventions may include digging boreholes, supply of water to households that experiences water scarcity.

4.4 Access to water by households (rural, urban and peri-urban)

Majority of the population resides in rural areas and relies on water from dug wells (protected) (25.6%), protected springs (18.4%), tube well borehole with a pump (17.6%) and surface water (12.8%). Further, households in in peri-urban obtain their drinking water mostly from protected springs (51.1%), protected dug well (22.2%) and surface water (20%). Urban households rely on tube well borehole with pump (21.9%), protected dug well (17.5%) and piped water (public tap) (16%).

Figure 4.2: Access to water by households (rural, urban and peri-urban)



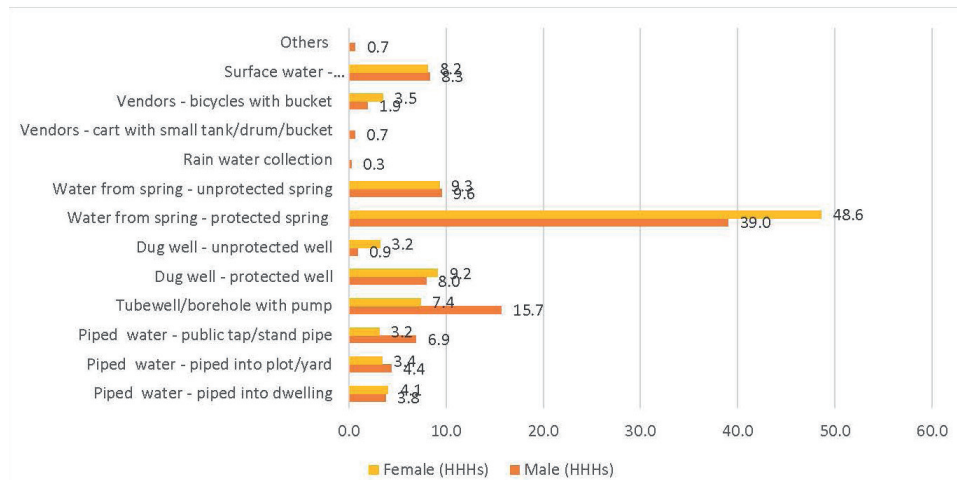
Source: KNBS 2015/2016

Therefore, for equality in access to water the county government can waive or reduce the water bills for urban households who uses piped water as well as support water vendors in access to clean safe water at a reduced cost. This will mean financial support to water service companies. Other long-term measures include inclusion of both rural, urban, and peri-urban dwellers into decision making in regard to water management and governance.

4.5 Access to water by household heads

Majority of Female headed households get their drinking water from protected springs (48.6%) compared to their male counterparts (39%), further most of the male headed households have a higher chance to access of tubewell/ borehole water with pump (15.7 %) and piped water (public tap/standpipe) (6.9%) compared to female headed households 7.4 %) and 3.2 per cent respectively.

Figure 4.3: Access to improved and unimproved sources of water by households

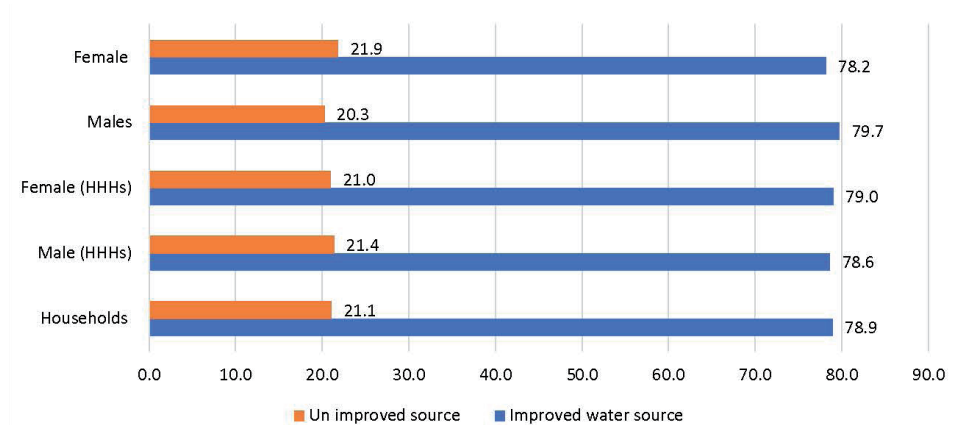


Source KNBS 2015/2016

4.6 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 water³ is high among households (78.9 %) this is similar among male and female headed households (see that chart below).

Figure 4.4: Access to improved and unimproved sources of water by households



Source: KNBS 2015/2016

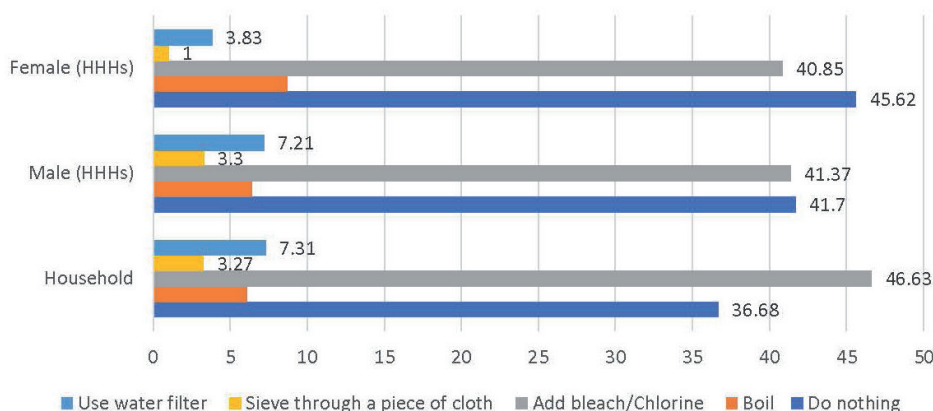
³ Improved source of drinking water includes; water from the following sources Piped water - piped into dwelling, Piped water - piped into plot/yard, Piped water - public tap/stand pipe, Tubewell/borehole with pump, Dug well - protected well, Dug well - unprotected well, Water from spring - protected 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.

Inequalities in 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.

4.7 Access to safe drinking water

Clean safe drinking water is important in reducing infectious diseases. Majority of the households (46.6%) add bleach or use chlorine to make water safe for drinking. Similarly, a larger proportion of the households do nothing about the safety of their drinking (36.7%), more female (45.6%) than male (41.7%) headed households are likely to do nothing in terms of making drinking water safe. Top interventions to make drinking water safe was supplying households with piped water, protecting sources of water that provide drinking water, and provision of water treatment facilities and chemicals to households.

Figure 4.5: Access to safe drinking water by households



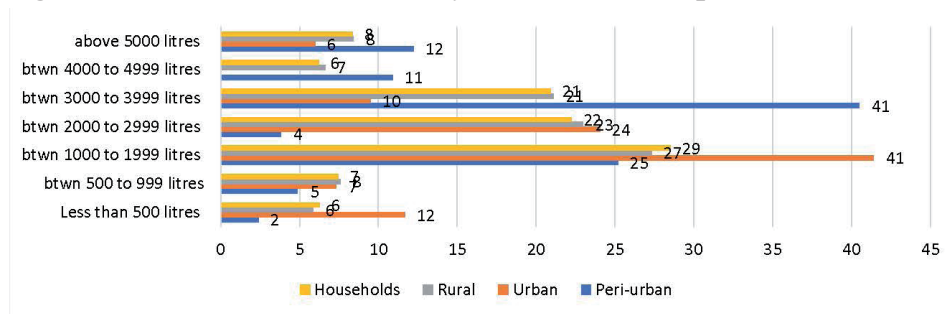
Source: KNBS 2015/2016

Additionally, clean water can also go a long way in reducing infection therefore the need for the county to increase access to improved source of water this may involve increasing piped water coverage, boreholes, and wells as well as continuous protection of springs. Though water vendors contribute a small proportion of water supply, they can be supported through waiver of fees and licenses to help increase access to water by households. The major economic activity in the county being farming, it would be important to have a separate drinking point for livestock, different from the household water drinking water sources to minimize water contamination as well as conflict over water resource.

4.8 Volumes for water used by households in the past one month

Most households (29%), rural (27.3%) and urban (41.4%) use between 1000-1999 litres of water a month compared to peri urban (40.5%) who use between 3000 to 3999 litres of water amonth.

Figure 4.6: Volumes of water used by households in the past month

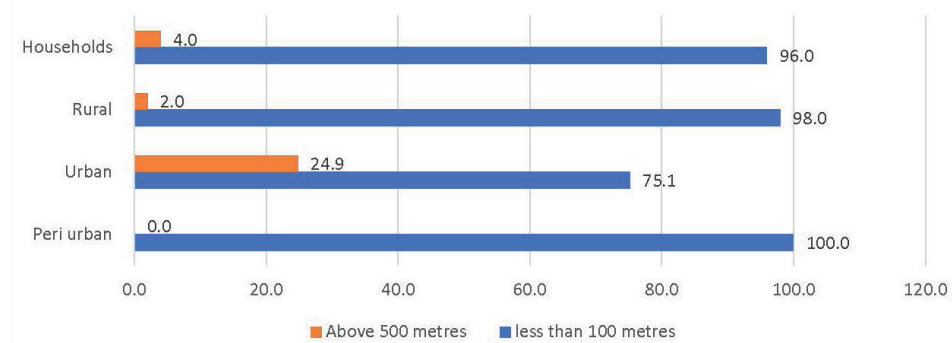


Source: KNBS 2015/2016

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

Majority of the households (95.6%) both rural, urban and peri-urban covers less than 100 metres to water sources, meaning they have water within their premises or close to their compounds.

Figure 4.7: Distance covered by households to and from water sources



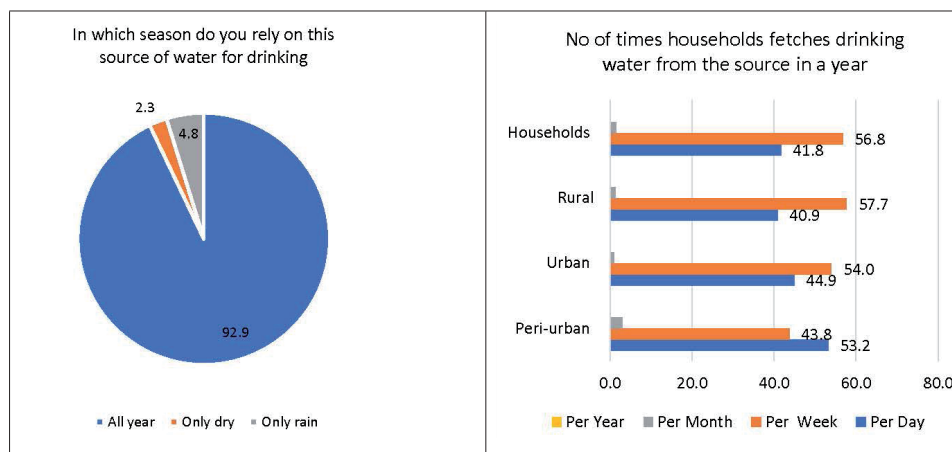
Source: KNBS 2015/2016

If water is available to households, schools, health institutions within the shortest distances possible, it easily encourages observing hand hygiene thus minimizing infections. In learning institutions, it minimizes rates of school dropouts among girls. Women headed households are disadvantaged in access to drinking water within shortest distances and this may make them vulnerable to contracting COVID-19 as well as other infectious diseases. To support hand hygiene among households there is need to have water supply closer to households headed by women.

4.10 Access and reliability of water sources

Majority of households (92.9%) in the county rely on the main source of drink water all year round,. Most households (41.8%) must fetch drinking water from the sources per day both rural (40.9%) urban (44.9%) and peri-urban (53.2%) household. This means there may be more of interactions with other household members in areas where water sources are shared. It also implies that households may not be having enough water storage facilities that can minimize number of trips to water points in a day putting them at risk of water shortages as well as saving on time for other economic activities.

Figure 4.8: Access and reliability to water sources by households



Source: KNBS 2015/2016

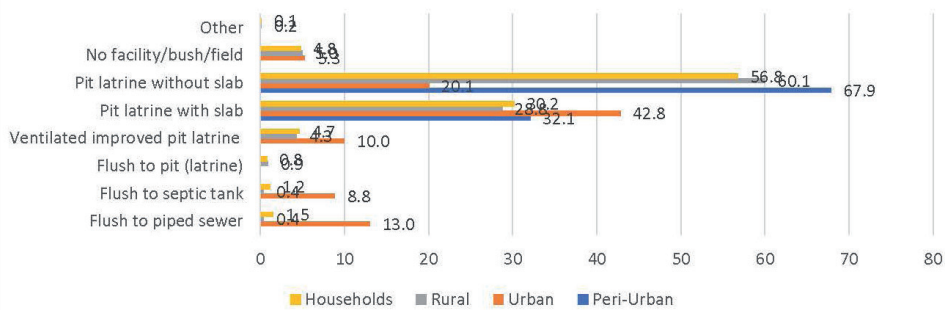
Source: KNBS 2015/2016

Top interventions are protection of the existing major water sources for households and development of new water sources, this may include rainwater harvesting at individual and institutional level. Protection of water catchment areas.

4.11 Access to sanitation

Majority of the households (56.8%) use pit latrines without slab, which is a common among rural (60%) and peri-urban households (67%). While most of the urban households who uses pit latrine with slab (42.8%), with only a small portion of urban (13%) with access to flush to piped sewer toilet facility.

Figure 4.9: Access to sanitation by households in the county



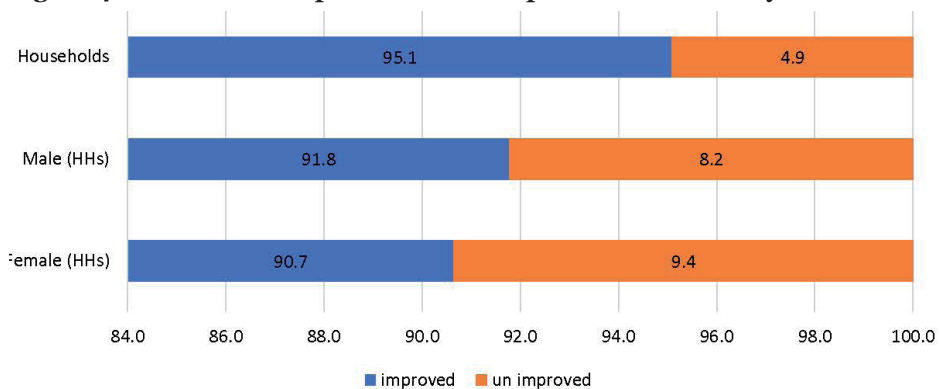
Source: KNBS 2015/2016

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 (95.1 %) have access to improved sanitation facilities⁴. This is also similar among male (91.8 %) and female (90.7 %) headed households.

Figure 4.10: Access to improved and unimproved sanitation by households



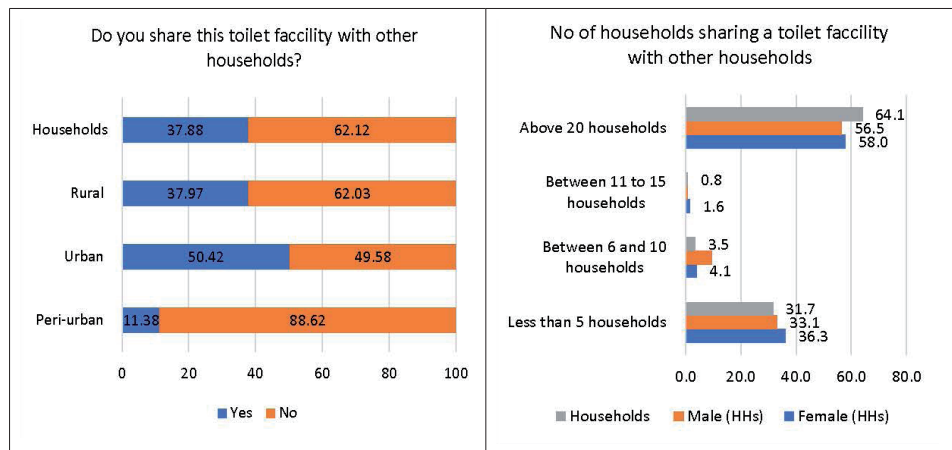
Source: KNBS 2015/2016

Sharing of a toilet facility

Additionally, more than half of the households (62.1%) do not share a toilet facility with other households, this is more in rural (62%) urban (49.6%) compared to peri urban (88.6%). On the other hand, most of households (64.1%) share a toilet facility with more than 20 households (male headed households 56.5 per cent and female headed households 58%).

⁴ Improved sanitation includes; flush to piped sewer, flush to septic tank, flush to pit (latrine), flush to somewhere else, flush to unknown place, ventilated improved pit latrine, pit latrine with slab, pit latrine without slab). Unimproved sanitation includes; composting toilet, bucket toilet, hanging toilet/hanging, no facility/bush/field, others

Figure 4.11: Number of households sharing a toilet facility



Source: KNBS 2015/2016

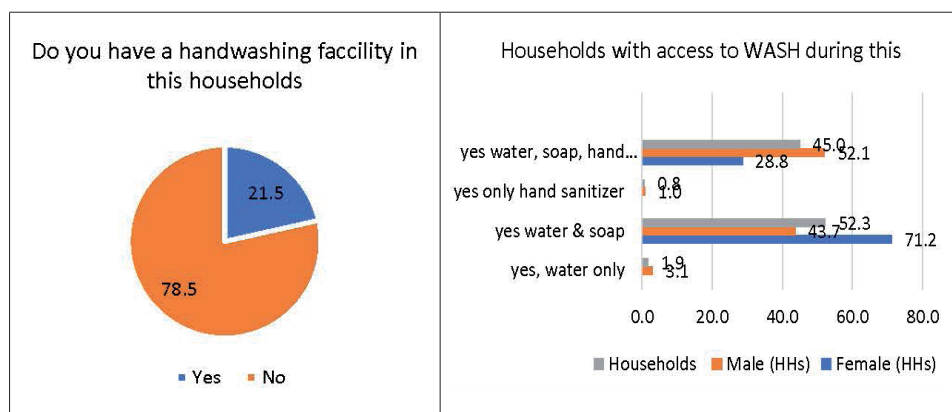
Source: KNBS 2015/2016

Sharing of toilet facilities with large number of households puts individuals at risk of contracting COVID-19, and other infectious diseases in cases where proper hygiene is not maintained as well as social distancing measures. Similarly, WHO guidelines require separate sanitation facilities for suspected COVID-19 cases which households may not be able to achieve

4.12 Access to Hygiene (hand washing) during the COVID-19 period

Hygiene has been identified very important in helping to curb transmission of infectious diseases, currently most households (78.5%) do not have a handwashing facility in their households. Despite this most households (52.3%) have access to WASH (*Water and soap*) during this period of COVID-19. This is more among female (71.2 %) than male (43.7%) headed households. Additional 45 per cent of the households having access to both water, soap, and hand sanitizer.

Figure 4.12: Access to wash during the COVID-19 period



Source: KNBS KIHBS 2015/2016

Source: KNBS COVID-19 wave 2, 2020

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

4.13 Constraints faced

Currently the county government is facing challenges in revenue collections since COVID-19 has resulted into reduced incomes among households and businesses, this has forced the county government to defer collection of revenue from the water services it provides as well as financial support to water services providers. 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 include, drought, water leakages

The demand for water remains high not only at household level but it has become essential in institutions, offices, marketplaces and other public places. Water is also supportive to agriculture, livestock keeping, tourism and manufacturing.

4.14 Opportunities with COVID-19 in various sectors

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

4.15 Emerging Issues

4.15.1 Key messages

COVID-19 has placed a higher demand for water at the households, health care facilities, schools' marketplaces, public places for handwashing and other general uses. This has therefore forced counties to implement programs that will ensure increased access to water.

- i. The county has adequate water sources though the sources tend to dry during dry season
- ii. Most households have to fetch water from water sources daily this increased risk of contracting COVID-19 due to interactions with more households, similarly, it puts households at risk of going without water during times of water scarcity.
- iii. Most households in the county have higher access to improved sources of water both in rural (76 %), urban (97.3 %) and peri urban (83.6 %). Clean and safe water guarantees good health leading to low health expenditures among households.
- iv. There is low access to piped water in rural (7.2 %) and peri urban areas (3 %) compared to urban (54.1 %). This means low revenue from piped water for the county government. Similarly, it also implies low access to clean and safe water thus putting households at risks to water related diseases.
- v. Access to improved sanitation remains high in the county both in rural (99.5 %), urban (99.5 %) and peri urban households (100 %).

- vi. Households connectivity to piped sewer is low at less than 1 per cent in both rural urban and peri urban areas compared to urban (12.4 %) areas. Low connectivity to piped sewer denies households from access to safe sanitation as well as revenue from sanitation services.
- vii. Sharing of a toilet facility with other households is common among households, this is more in urban (51.6 %), peri urban (12.9 %) compared to rural areas (38.5 %). Toilet sharing puts households at risk of contracting COVID-19, and other infectious diseases in cases where proper toilet hygiene is not maintained.
- viii. There is a higher access to hand washing, with majority of households (52.3 %) having access to WASH (water and soap) while only 45.0 per cent of the households had access to both water, soap and hand sanitizer during this period of COVID-19. This minimizes the risks of infections.
- ix. On the other hand, 78.5 per cent of the households do not have a designated handwashing facility in their households. This may put households at risk of contracting infection due to inability of maintaining hand hygiene.

4.16 Recommendations

- i) Increase water supply in households, institutions and public places through drilling of boreholes in all the sub-counties.
- ii) Upscale abstraction of water from rivers, spring protections, harvesting of rainwater from roof and other catchments to help achieve increase to water access.
- iii) Establish new bulk water systems for multi-purpose use and distribution to industrial zones.
- iv) Increase private sector involvement in water for production programmes.
- v) Gazette water reserve areas for large dams.
- vi) Strengthen community-based management systems (CBMS) for water for production.
- vii) Involve both men and women in water management and governance.
- viii) Expand and rehabilitate the existing piped water connection infrastructure to help increase access to water.
- ix) Expand sewer infrastructure to accommodate more households.
- x) Undertake a comprehensive survey of installed water capacity, water demand and connectivity in terms of functionality and coverage of the supply.
- xi) Improve access to safe and improved toilets in schools, health care facilities, workplaces and public places.
- xii) Promote the importance of handwashing and construct WASH facilities to increase access at the household level.
- xiii) Inculcate a county culture of basic hand hygiene and efficient water usage.

5. Manufacturing, Trade and MSMEs

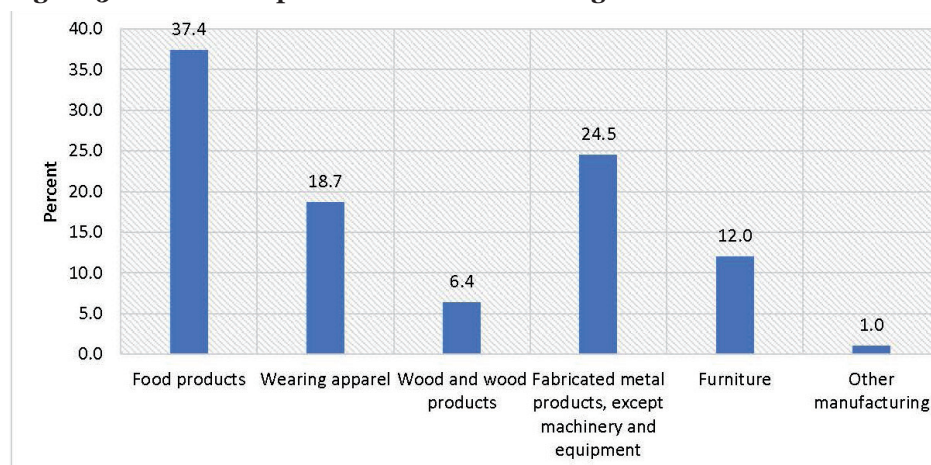
5.1 Characteristic of Manufacturing sector

Bungoma County has 5,087 establishments involved in manufacturing activities which comprise of 15.7 per cent of a total of, 32,502 firms (KNBS, 2016) and all are micro in size.

5.1.1 Sector of operation

According to the KNBS, 2016 survey, key sub-sectors that drive manufacturing include: food products (37.4%), fabricated metal products, except machinery and equipment (24.5%), wearing apparel (18.7%), furniture (12%), and wood and wood products (6.4%) (figure 5.1). These are sub-sectors that are 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 that support value addition and drive manufacturing agenda within Bungoma County include maize, cassava, honey, leather, sugarcane, avocado, tobacco, textiles, and dairy. The large industries driving manufacturing sector in the county are involved in sugar, paper milling, tobacco, dairy, and coffee processing.

Figure 5.1: Sector of operation in manufacturing

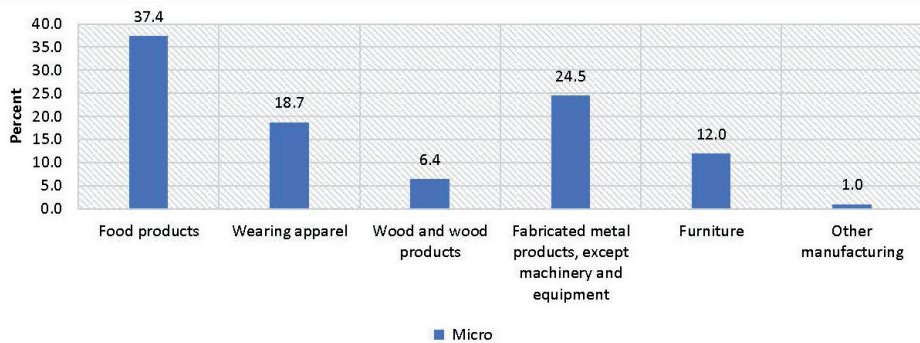


Source: KNBS, 2016

5.1.2 Sector of operation by size

Nearly all manufacturing firms in Bungoma County are micro in nature and operate in the food products (37.4%), fabricated metal products, except machinery and equipment (24.5%), wearing apparel (18.7%), furniture (12%), and wood and wood products (6.4%) (Figure 5.2).

Figure 5.2: Manufacturing firms by sector and size

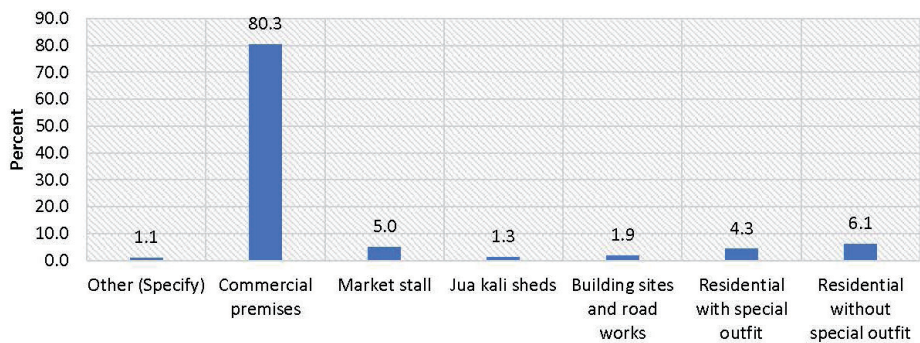


Source: KNBS, 2016

5.2 Location of manufacturing firms by type of premises

Common premises used by manufacturing firms in Bungoma County are commercial (80.3 %), residential without special outfit (6.1 %), market stall (5 %), and residential with special outfit (4.3 %) (figure 5.3).

Figure 5.3: Location of manufacturing firms by premises



Source: KNBS, 2016

5.3 Distribution of Manufacturing firms by gender and size

Manufacturing establishments in Bungoma county are male dominated (67.7 %), with females comprising 16 per cent while 16.3 per cent are jointly owned and all firms fall in the micro category (table 5.1).

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

Gender	A11	Micro
Male	3,442 (67.7)	3,442 (67.7)
Female	815 (16)	815 (16)
Joint	830 (16.3)	830 (16.3)
Total	5,087 (100)	5,087 (100)

Source: KNBS, 2016

5.4 Distribution of Manufacturing firms by gender and sector

Majority of the sub-sectors in manufacturing are male dominated as highlighted in figure 39: food products (26.2 %), fabricated metal products, except machinery and equipment (20.5 %), furniture (10 %), wood and wood products (6.4 %), among others. Females are mostly found in the wearing apparel (10.8 %), food products (4.3 %), and fabricated metal products, except machinery and equipment (figure 5.4).

Figure 5.4: Distribution of Manufacturing firms by gender and sector



Source: KNBS, 2016

Considering employment, the manufacturing sector employs more men (78.2 %) than women (21.8 %) (Table 5.2).

Table 5.2: Employment by gender and size for manufacturing firms

Number of employees	Micro	Total
Male	10,542 (78.2)	10,542 (78.2)
Female	2,940 (21.8)	2,940 (21.8)
Total	13,482 (100)	13,482 (100)

Source: KNBS, 2016

5.4.1 Education levels of Manufacturing firm owners

Majority of owners of firms in manufacturing have secondary (42.6 %), primary (30.9 %), mid-level college diploma or certificate (18.5 %) and vocational or youth polytechnic (5.6 %) education (figure 5.5). About 2.3 per cent of the manufacturing firm owners have a degree education.

Figure 5.5: Education levels of manufacturing firm owners

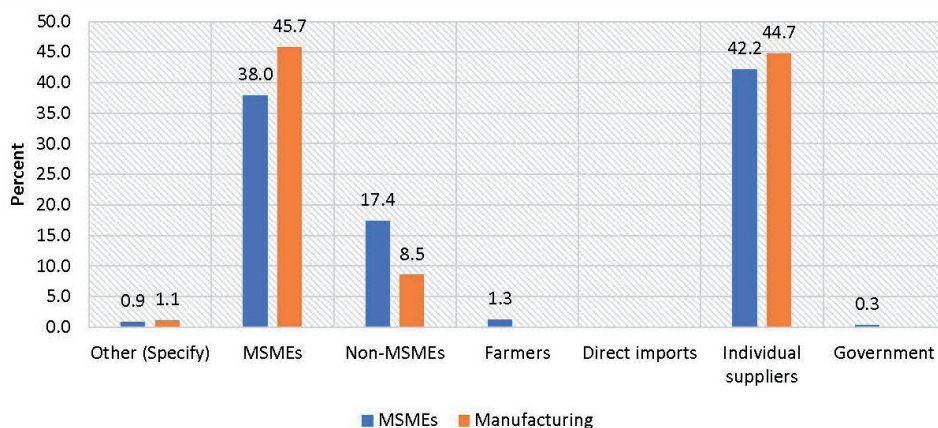


Source: KNBS, 2016

Source of markets

Most of manufacturing firms and MSMEs in general rely on individual consumers for markets at 92.6 per cent and 94.4 per cent respectively (figure 5.6). In addition, these sectors also depend on markets from MSMEs and non-MSMEs.

Figure 5.6: Source of markets



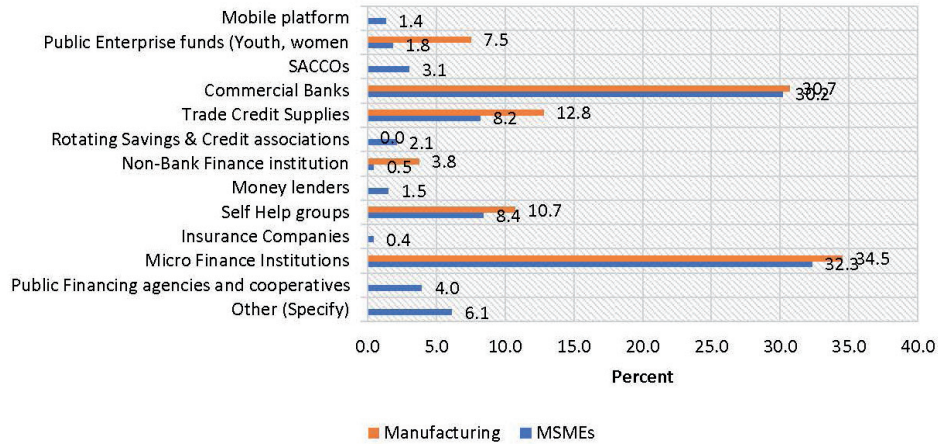
Source: KNBS, 2016

Source of material inputs

Broadly, manufacturing enterprises and MSMEs source for material inputs from amongst individual suppliers at 44.7 per cent and 42.2 per cent respectively, from MSMEs at 45.7 per cent and 38 per cent respectively (figure 5.7). Non-MSMEs as well as farmers are also important to the supply of inputs. Manufacturing firms and MSMEs hardly depend

on external markets for their inputs, and therefore, disturbances in the external source markets have little implications to their operations in Bungoma County.

Figure 5.7: Source of material inputs



Source: KNBS, 2016

5.5 Level of innovation by firms in Manufacturing

About 5.4 per cent of the establishments in manufacturing are involved in process innovation, 4.8 per cent product while 2.8 per cent are in market innovation (table 5.3).

Table 5.3: Level of innovation by firms in Manufacturing

Type of innovation	Micro			Total
	Don't know	No	Yes	
Product	0 (0)	4,843 (95.2)	244 (4.8)	5,087 (100)
Process	0 (0)	4,815 (94.6)	273 (5.4)	5,087 (100)
Market	0 (0)	4,944 (97.2)	143 (2.8)	5,087 (100)

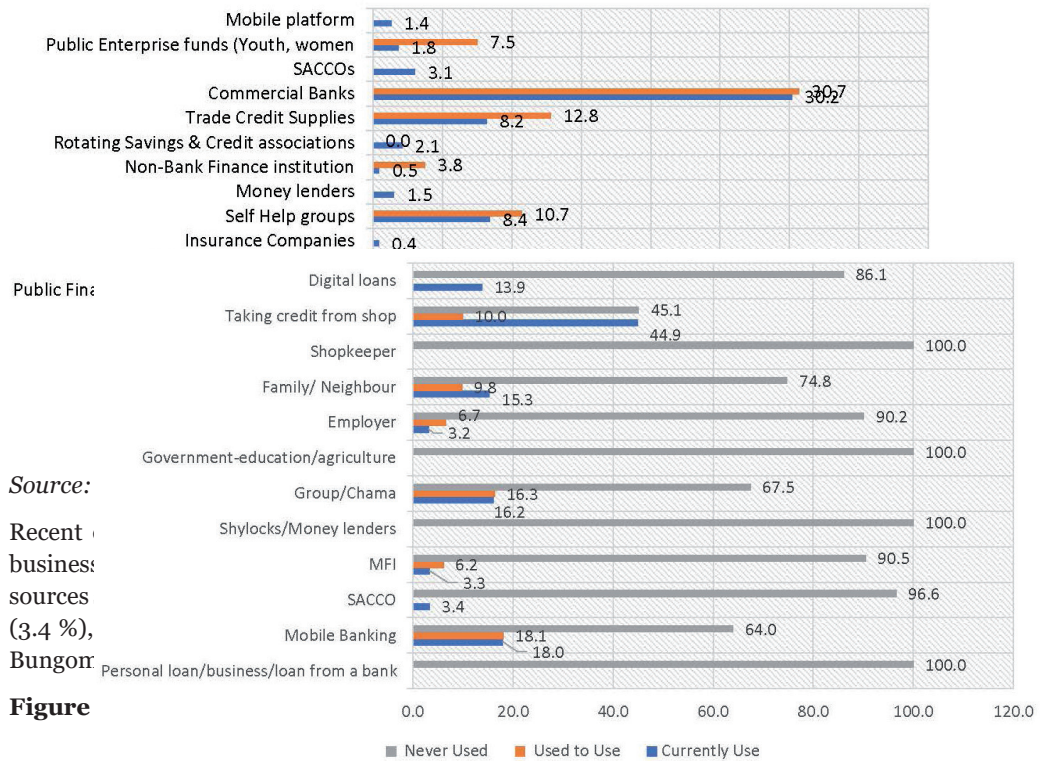
Source: KNBS, 2016

5.6 Access to credit for Manufacturing and MSMEs firms

According to the MSME 2016 survey, 69 per cent of MSMEs and 75.1 per cent of those in manufacturing applied for credit. The main sources of credit for manufacturing firms are: microfinance institutions (34.5 %), commercial banks (30.7 %), trade credit supplies (2.8 %), self help groups (10.7 %), public enterprise funds (7.5 %), among others. MSMEs largely rely on microfinance institutions (32.3 %), commercial banks (30.2 %), self help

groups (8.4 %), and trade credit supplies (8.2 %) (figure 5.8).

Figure 5.8: Sources of finance



Source:

Recent

business

sources

(3.4 %),

Bungom

Figure

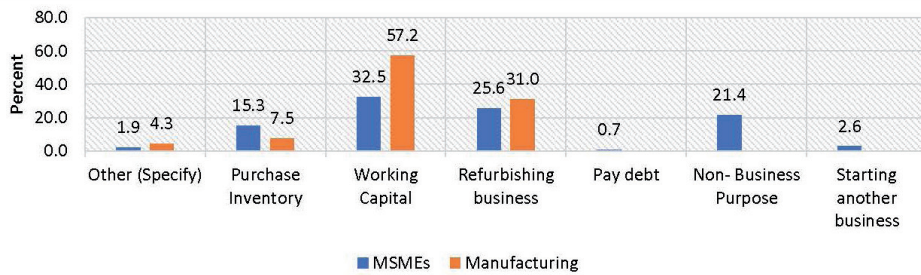
5.6.1

Source: FinAccess, 2019

5.6.2 Purpose of credit

Figure 5.10 presents the main purpose of credit by both MSMEs and manufacturing enterprises. Broadly, manufacturing firms require financing for: working capital (57.2 %), refurbishing business (25.6 %), purchase of inventory (15.3 %), starting another business (2.6 %), among others. MSMEs in Bungoma County require credit for working capital (32.5 %), business refurbishment (43.3 %), working capital (33.2 %), and non-business purposes (9.2%) (Figure 5.10).

Figure 5.10: Main purpose of credit

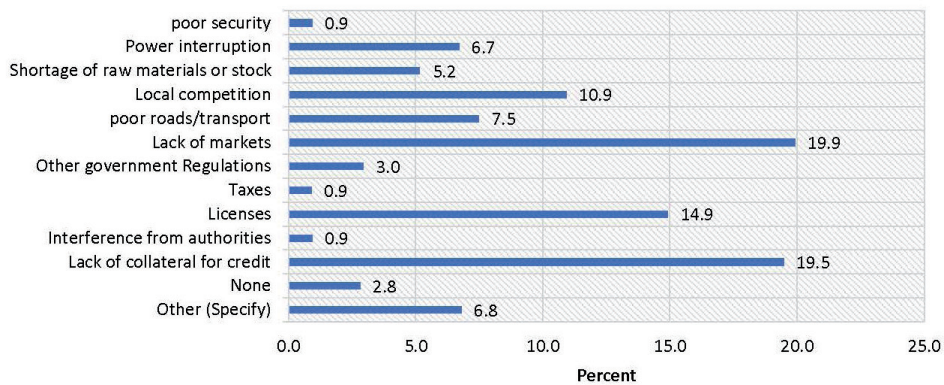


Source: KNBS, 2016

5.7 Constraints faced by manufacturing firms

The main constraints faced by firms in manufacturing include lack of markets (19.9 %), lack of collateral for credit (19.5 %), licenses (14.9 %), local competition (10.9 %), and power interruption (6.7 %) (5.11).

Figure 5.11: Constraints faced by manufacturing firms



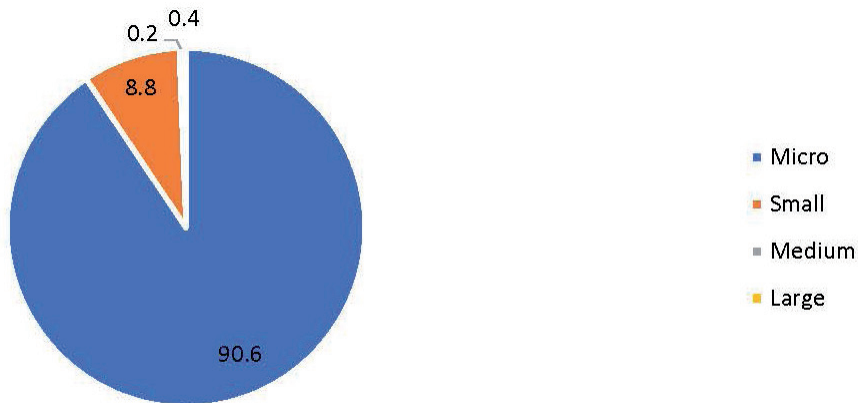
Source: KNBS, 2016

5.7.1 b) Micro, Small and Medium Enterprises (MSMEs)

Bungoma County has 32,502 establishments⁵ with 29,440 (90.6 %) being micro; 2,864 (8.8 %) are small; 81 (0.2 %) being medium, and 117 (0.4 %) are large enterprises (KNBS, 2016) (figure 5.12).

⁵ After applying weights

Figure 5.12: Distribution of MSMEs by size

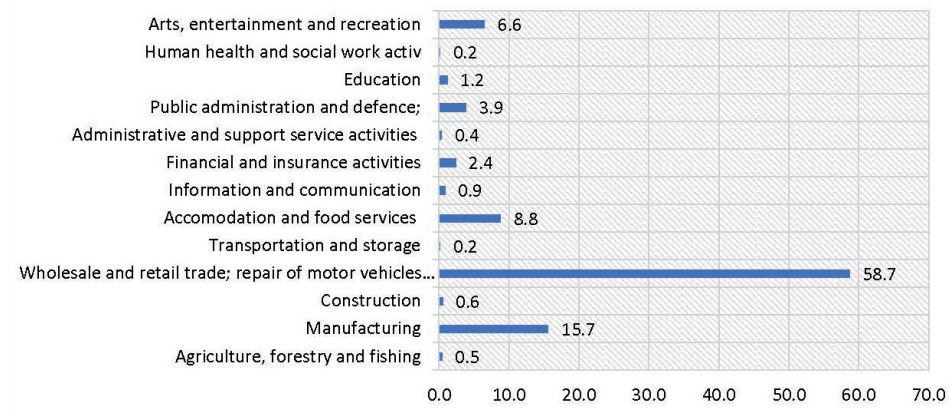


Source: KNBS, 2016.

5.7.2 Sector of operation by MSMEs

Majority of MSMEs in Bungoma County operate in the wholesale and retail trade; repair of motor vehicles and motorcycles (58.7%), manufacturing (15.7%), accommodation and food services (8.8%), and arts, entertainment, and recreation (6.6 per cent %) (figure 5.13). Ideally, these are the sectors that have been hit the most by the pandemic and need to be prioritised to achieve reengineering and recovery.

Figure 5.13: Sector of operation by MSMEs



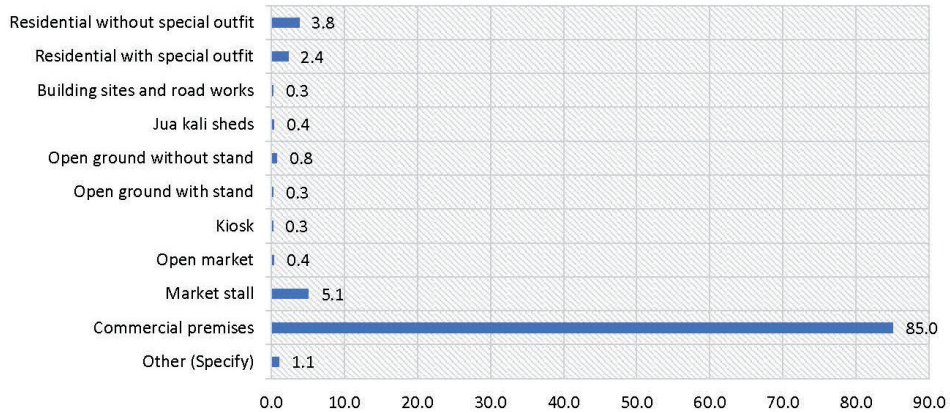
Source: KNBS, 2016

5.7.3 Location of the businesses by type of premises

MSMEs in Bungoma County are largely located in commercial premises (85%), market stalls (5.1%), residential without special outfit (3.8%), and residential with special outfit

(2.4 %) figure 5.14). Most of the businesses in the County could be having a lot of difficulties in meeting their rental obligations due income disruptions occasioned by COVID-19. According to the May 2020 KNBS COVID-19 survey, 85.2 per cent of the non-farm businesses attributed non-payment of household rental obligations to reduced incomes/ earnings while 14.8 per cent attributed the same to delayed incomes/earnings. For those involved in farm businesses, all the interviewed establishments attributed the same to reduced incomes/earnings.

Figure 5.14: Location of businesses by premises



Source: KNBS, 2016

Distribution of MSMEs by gender and size

Table 5.4 shows the distribution of MSMEs in Bungoma county by gender: 46.9 per cent are male owned, 19.5 per cent are female owned, while 33.6 per cent are jointly owned (male/female). For Micro establishments: 48.1 per cent are male owned, 20.5 per cent are female owned, while 31.5 per cent are jointly owned.

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

Gender	A11	Micro	Small	Medium	Large
Male	15,239 (46.9)	14,154 (48.1)	986 (34.4)	67 (82.8)	33 (27.7)
Female	6,340 (19.5)	6,026 (20.5)	313 (10.9)	0 (0)	0 (0)
Joint	10,923 (33.6)	9,259 (31.5)	1,565(54.6)	14 (17.2)	85 (72.3)
Total	32,502 (100)	29,440 (100)	2,864 (100)	81 (100)	117 (100)

Source: KNBS, 2016

Under small-sized establishments, 34.4 per cent are male, 10.9 per cent female and 54.6 per cent joint owned. Majority of the medium establishments are male owned (82.8 %) while large enterprises are joint owned (72.3 %).

More male (57 %) are employed in MSMEs in Bungoma County followed by females (43 %). Micro sized establishments employ more people (51.9 %) compared to small (31 %), medium (5.2 %) and large (11.9 %) (table 5.5). Micro firms employ 31 per cent male and 21 per cent female, small sized employ 13.8 per cent male and 1.3 per cent female while

medium sized establishments employ 3.8 per cent male and 1.3 per cent female. Equally large enterprises employ more men (8.4 %) than women (3.5 %).

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

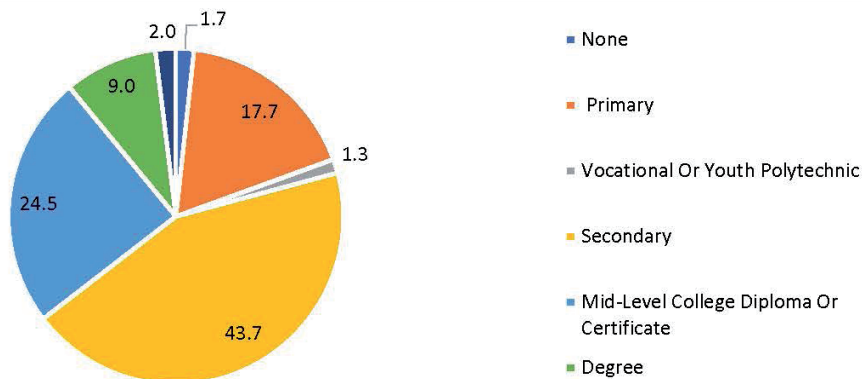
	Micro	Small	Medium	Large	Total
Male	42,409 (31)	18,964 (13.8)	5,267 (3.8)	11,481 (8.4)	78,122 (57)
Female	28,743 (21)	23,493 (17.2)	1,800 (1.3)	4,807 (3.5)	58,843 (43)
Total	71,152 (51.9)	42,456 (31)	7,068 (5.2)	16,289 (11.9)	136,965 (100)

Source: KNBS, 2016

5.8 Education levels of MSME owners

Figure 49 indicates that majority of MSME owners in Bungoma County have a secondary education (43.7 %) while 24.5 per cent have mid-level college diploma or certificate, 17.7 per cent have primary, and 9 per cent have degree education respectively (figure 5.15).

Figure 5.15: Education levels of MSME owners



Source: KNBS, 2016

5.8.1 Level of innovation by MSMEs

Low levels of innovation are reported in Bungoma County and only among micro-sized establishments. Firms engage in product (2.8 %), process (1.1 %) and market innovations (1.3 %) (Table 5.6).

Table 5.6: Level of innovation by MSMEs

Type of Innovation	Micro		Small				Medium		Large		Total			
	Refused to answer	Don't know	No	Yes	Refused to answer	Don't know	No	Yes	No	Yes	Don't know	No	Yes	
Product	0 (0)	0 (0)	28,408 (87.8)	901 (2.8)	0 (0)	0 (0)	2,836 (8.8)	0 (0)	81 (0.2)	0 (0)		117 (0.4)	0 (0)	32,344 (100)
Process	0 (0)	0 (0)	28,948 (89.5)	361 (1.1)	0 (0)	0 (0)	2,836 (8.8)	0 (0)	81 (0.2)	0 (0)	0 (0)	117 (0.4)	0 (0)	32,344 (100)
Market	0 (0)	0 (0)	28,879 (89.3)	430 (1.3)	0 (0)	0 (0)	2,794 (8.6)	42 (0.1)	81 (0.2)	0 (0)		117 (0.4)	0 (0)	32,344 (100)

Source: KNBS, 2016

5.8.2 E-commerce

Participation in e-commerce by households in Bungoma County is below the national average. About 1.9 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 (2.4 %) than women (1.5 %). With introduction of stay-at-home protocols due to COVID-19 online trade has been expected to thrive, little may be impacted in Bungoma County since fewer households participate in the same.

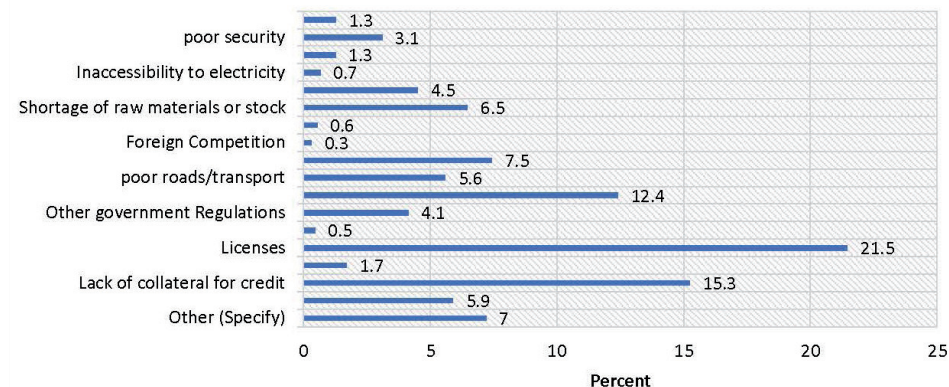
5.9 Turnover tax

Only 6.8 per cent of MSMEs in Bungoma County (2,205) had a previous monthly turnover of above Ksh 83,333 which translates to Ksh 1 million a year. Ideally, this would be the establishments that are eligible for turnover tax with the new thresholds recently introduced vide the tax laws (Amendment) Act, 2020. The actual impact of this move may be difficult to estimate due to data challenges on actual revenue streams and the number of establishments that comply with the same.

Constraints faced by MSMEs

The major constraints faced by MSMEs in Bungoma County include licences (21.5 %), lack of collateral for credit (15.3 %), lack of markets (12.4 %), local competition (7.5 %), and shortage of raw materials or stock (6.5 %) (figure 5.17).

Figure 5.16: Main constraints faced by MSMEs



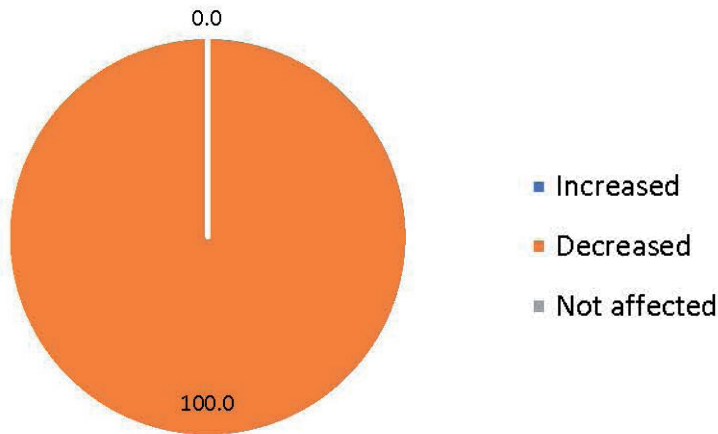
Source: KNBS, 2016.

A study on County Business Environment for MSEs (CBEM) identified other constraints faced by MSMEs in Bungoma 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 characterised 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.

5.10 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 Bungoma 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 5.17: Effects of COVID-19 on household non-farm and farm businesses

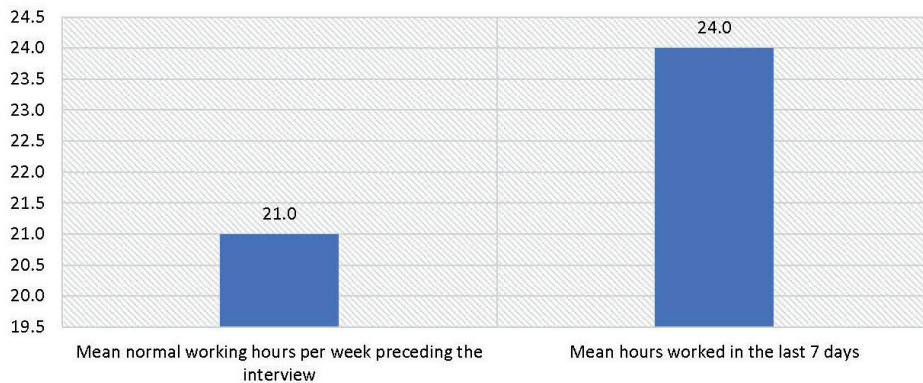


Source: KNBS, COVID_19 Survey 2020

5.11 Labour dynamics

During the period considered in KNBS, COVID-19 Survey 2020 data collection, respondents reported an improvement 3 hours in the mean working hours for household non-farm and farm businesses in Bungoma County which implies an improvement in economic activities between the interview periods (figure 5.19). This could be as a result of agriculture, services, and manufacturing activities considering these considerably form the main stay of the County.

Figure 5.18: Labour dynamics on household non-farm and farm businesses



Source: KNBS, COVID-19 Survey 2020

The survey also indicated that accommodation and food services sector was hard hit and lost 40 hours in usual and actual hours worked while the wholesale and retail trade sector lost 7.9 hours in a week. This is an indicator of the adverse effects on the service sector of

Bungoma County due to the pandemic, which could imply loss of productivity, output and employment. Equally, the manufacturing sector lost 11.8 hours.

5.11.1 Key Messages:

- a) The key sectors that drive the economy of Bungoma county include: Agriculture, services and Manufacturing. Hence, support to be prioritised to these sectors to ensure re-engineering of the County economy.
- b) MSMEs in Bungoma County are mostly located in commercial premises. Hence, most of the businesses in the County could be having a lot of difficulties in meeting their rental obligations due to income disruptions occasioned by COVID-19
- c) The main constraints faced by firms in manufacturing include: lack of markets, lack of collateral for credit, licenses, local competition, and power interruption.
- d) The major constraints faced by MSMEs in Bungoma County include: licences, lack of collateral for credit, lack of markets, local competition, shortage of raw materials or stocks, poor road infrastructure, multiple licences and permits, inadequate worksites, among others.
- e) Nearly all households in Bungoma County report a negative effect on their non-farm and farm businesses in Bungoma County as a result of the COVID-19 pandemic.
- f) The main sources of credit for manufacturing firms are: microfinance institutions, commercial banks, trade credit supplies, self help groups, and public enterprise funds.
- g) 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. However as the pandemic subsides, the transition need to be managed smoothly.
- h) Manufacturing establishments must also adopt to cope with the new guidelines which could include rearranging floor plans to allow for social distancing.
- i) Training and capacity building are important in assisting MSMEs to surmount the shocks faced during the pandemic but also allow for re-emergence.
- j) 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.

5.12 Opportunities with COVID-19 in various sectors

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

- (i) Agro-processing for value addition with important areas of focus include maize, cassava, honey, leather, sugarcane, avocado, tobacco, textiles, and dairy products.

- (ii) The textile and wearing apparel sectors can be enhanced to provide PPEs for use within the County and potentially for export market.
- (iii) COVID-19 has increased demand for locally produced goods. It is an opportunity for industry and MSMEs development and generation of jobs for the youth.

5.13 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 Bungoma County's planned activities due to reduced projected revenues.
- (ii) The need to identify and promote specific and emerging value chains as a result of COVID-19, and which Bungoma 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.

5.14 Recommendations

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

- (i) Establish 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, will 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) COVID-19 has increased demand for locally produced goods in the County, and especially Personal Protective Equipment (PPEs), textiles and sanitisers. It is an opportunity for manufacturing and industry development and generation of jobs for the youth.
- (iii) Establishments in the county to adopt to the new pandemic guidelines including rearranging floor plans to allow for social distancing.
- (iv) Revive Nzoia sugar company and Malakisi cotton ginnery.
- (v) Collaborate with the National government to ensure security is enhanced to reduce on crime and create a peaceful business environment.

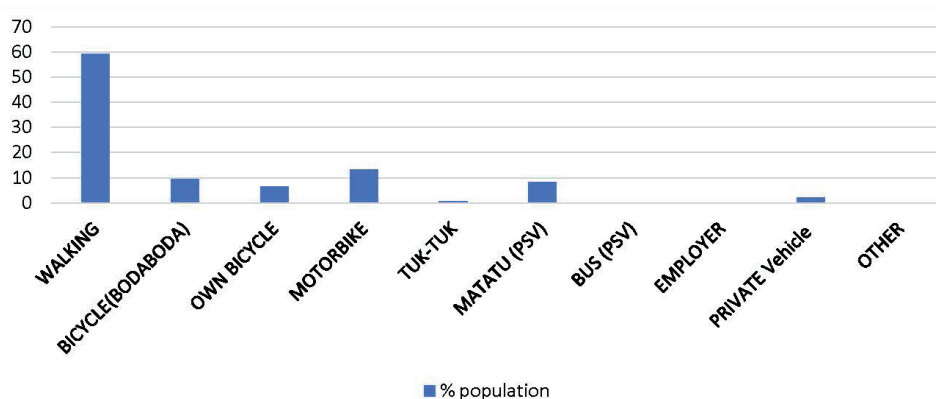
6. Infrastructure

6.1 Transport sector

6.1.1 Characteristics of the sector

In Bungoma majority of households own a bicycle (26.2 %) and motorcycle (11.9 %). Car ownership is at (3.1%) KNBS, 2019. The main means of transport used in the County is walking at 59.27 per cent, followed by bicycle motorbike 13.3 per cent, bodaboda 9.47 per cent, PSV matatus at 8.31 per cent, and own bicycle 6.68 per cent, figure 6.1 while per cent 47.38 per cent of the population had not changed the main means of transport (KNBS, 2020b). On average, residents travel 4.75 kilometers to their workplace at an average cost of Ksh 78.48. For the commute to school, residents spend on average Ksh 311.18 (KIHBS, 2015/16).

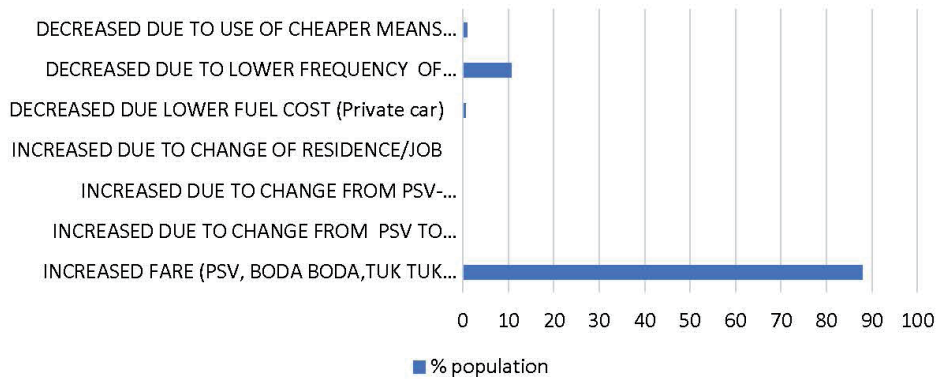
Figure 6.1: Main means of transport



Source: KNBS COVID-19 Impact Survey 2020

The KNBS COVID-19 Impact Survey 2020 revealed that 71.97 per cent of the population reported a change in the cost of travel/commute (figure 6.2). The expenditure on transport increased by 33.66 per cent from Ksh 101 before February 2020 to Ksh 135 in May 2020 for a oneway trip. The main change (87.92 %) in transport cost was attributed to increased fares for PSV, BodaBoda and TukTuk.

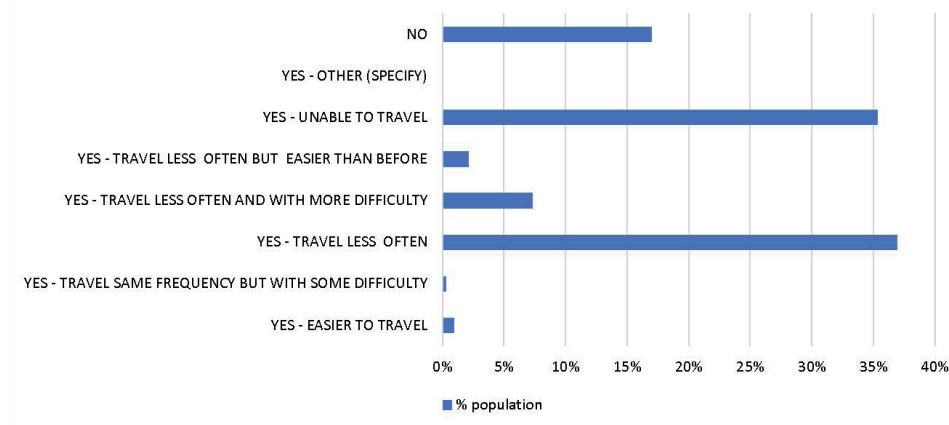
Figure 6.2: How has the cost of your MAIN travel changed



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

Residents had changed their travel patterns with 36.91 per cent of the population traveling less often, while 0.32 per cent travelled with the same frequency but with some difficulty, and 35.32 per cent were unable to travel (figure 6.3). However, 17.02 per cent of the population did not change their travel pattern.

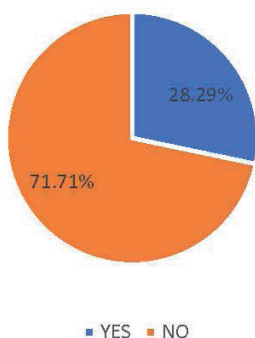
Figure 6.3: Change in travel patterns



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

The pandemic has affected delivery of goods and services for 28.29 per cent of households.

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



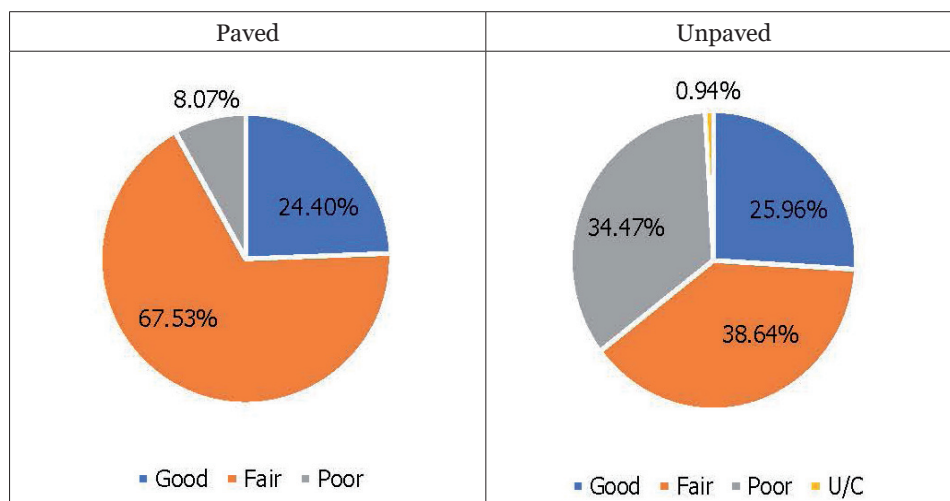
Source: KNBS COVID-19 Impact Survey 2020-wave 2

The County was allocated a total of Ksh 327,025,699 from the Road Maintenance Levy Fund towards road maintenance in the Financial 2017/18 (OCOB, 2019).

6.2 Road network

The county has a total of 5,231.32 Kilometres of classified road network. The paved County Road network covers 37.35 KMs, while the paved National roads covers 208.8KMs. Out of the total paved road network of 246.15KMs, 24.4 per cent is in good condition, 67.53 per cent in fair condition and 8.07 per cent in poor condition. The unpaved road network in the county covers 1978.64KMs (county roads) and 465.56 (National roads), of this, 25.96 per cent is in good condition, 38.64 per cent fair and 34.47 per cent in poor condition as depicted in figure 57 (KRB, 2019).

Figure 6.5: Road condition mix-classified road network



Source: Kenya Roads Board (2019)

The unclassified road network in the County covers 2540.95KMs, with 1932.72KMs of narrow roads, that is, road with a reserve of between 4 -9 meters, while there is a total of 608.23 KMS of new roads.

6.3 Constraints faced

The Rural Access Index (RAI) measures the proportion of the rural population who live within 2 km of an all-season road⁶. The county has a RAI of 94 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 34 per cent is a constraint to development.

6.3.1 Linkages to other sectors

- Transport has linkages in trade facilitation and agriculture value chains in the county.

6.3.2 Opportunities with COVID-19 on transport sector

With reference to the 8-point stimulus programme by the National Government⁷ 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 programme⁸ on labour-based road development approaches. The Roads 10,000 programme being implemented nationally by the Roads Subsector actors, and specifically, the Low Volume Sealed Roads (LVSr) approach⁹ offers a strategic and cost-effective approach to improve rural accessibility in the County.

6.3.3 Emerging Issues

- Due to curfew and cessation of movement, the matatu sector has been affected. Due to reduction of the carrying capacity, fare has been increased.
- Due to closure of Malaba border, there has been a huge traffic along Webuye, Bukende and Malaba road.
- The challenge of food as essential needs is contributing to interaction between community and truck drivers, hence heightening the risk of spreading COVID-19.

6.3.4 Recommendations

- Sensitize PSV and boda boda operators on COVID-19 prevention measures and assist vehicle owners in retrofitting the seating designs.
- Focus on increasing the share of unpaved roads in good and fair condition to above

⁶ RAI defined : <https://datacatalog.worldbank.org/dataset/rural-access-index-rai>

⁷ GoK eight point stimulus programme <https://www.president.go.ke/2020/05/23/the-seventh-presidential-address-on-the-coronavirus-pandemic-the-8-point-economic-stimulus-programme-saturday-23rd-may-2020/>

⁸ Roads 2000 programme [http://krb.go.ke/our-downloads/roads per cent202000 per cent20strategic per cent20plan.pdf](http://krb.go.ke/our-downloads/roads-per-cent202000-per-cent20strategic-per-cent20plan.pdf)

⁹ LVSr /Roads 10,000 programme <https://www.kerra.go.ke/index.php/lvsr>

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.

- (iii) 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 policy¹⁰.
- (iv) Improve and expand infrastructure for Non-Motorized Transport (NMT) in urban areas and along roads with heavy -highspeed traffic to promote sustainable mobility options and enhance road safety for all road users. This is in line with the Integrated National Transport Policy 2009 and the Sustainable Development Goals¹¹.
- (v) Adopt climate smart road engineering designs to safeguard road and bridge infrastructure from floods and to harvest storm water for irrigation and productive use.

6.4 Information and Communication Technology

The County was not prepared for this pandemic however, they are using existing service providers in internet connections and as at now they are using ICT to run county programs. The revenue department has been automated and people are now paying packing fee, single permits using online platforms. The county is in liaison with service providers to ensure constant connectivity and network coverage. Every sub-county has one ICT center.

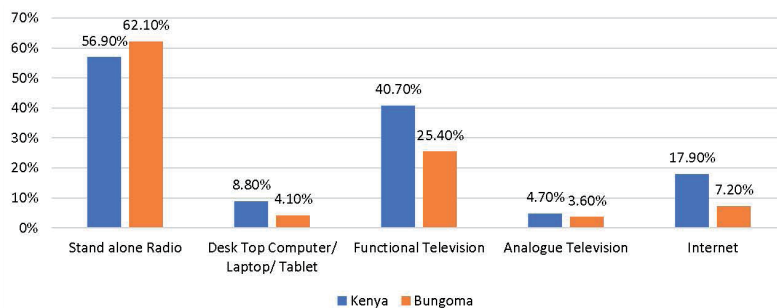
6.4.1 Characteristics of the sector

The analysis of the 2019 KPHC reveals that only 7.2 per cent of the conventional households in the county 'own' internet with 4.1 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).

¹⁰ Roads 2000 programme [http://krb.go.ke/our-downloads/roads per cent202000 per cent20strategic per cent20plan.pdf](http://krb.go.ke/our-downloads/roads%20per%20cent202000%20per%20cent20strategic%20per%20cent20plan.pdf)

¹¹ Sustainable Mobility for All: <https://sum4all.org/implementing-sdgs>

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

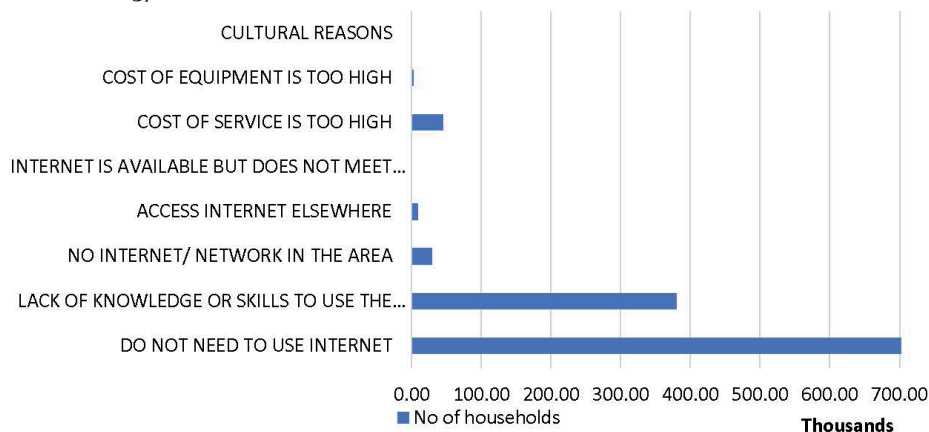


Source: KNBS (2019), Population and Housing Census

Online shopping is not prevalent in the County. 1.9 per cent of the conventional households searched and bought goods/services online. There exists gender disparity in online shopping with more men (2.4 %) than women (1.5 %) 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 do not 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).

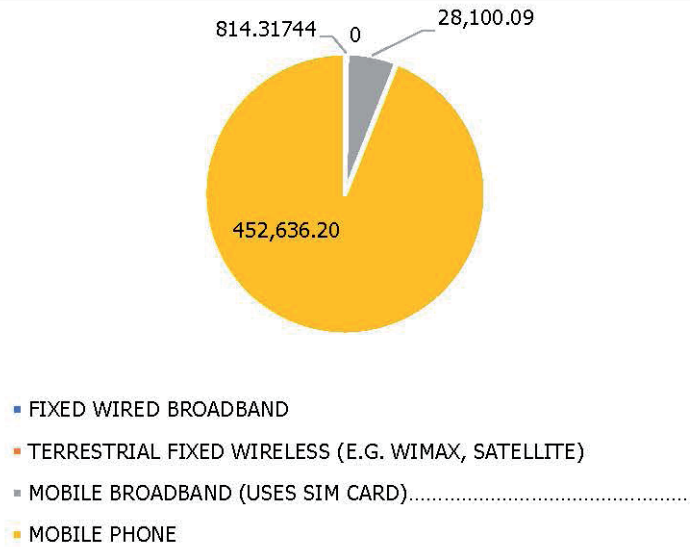
Figure 6.7: Why does not this household have any type of internet connection? KHIBS 2015/16



Source: KHIBS 2015/2016

Approximately 94 per cent of the internet users in the county rely on mobile phone for connectivity, with a marginal population of 6 per cent relying on mobile broadband that uses a sim card for connectivity.

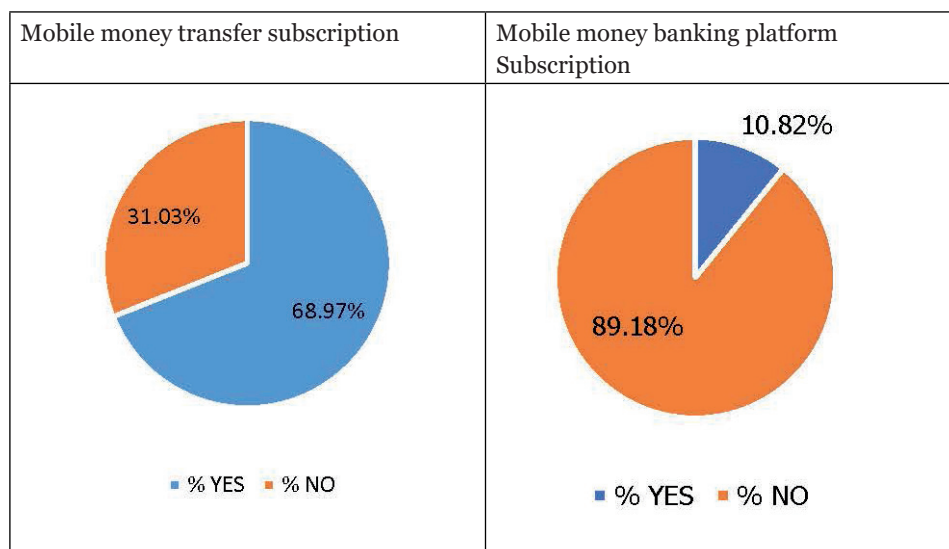
Figure 6.8: Type of internet connection



Source: KHIBS 2015/2016

Approximately 36.8 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 68.9 per cent of the people in the county have a mobile money subscription compared with only 10.82 per cent that have a mobile money banking platform subscription (KHIBS 2015/16). Mobile money and mobile banking subscriptions are captured in figure 6.9.

Figure 6.9: Mobile money transfer subscription and Mobile money banking platform Subscription



Source: KHIBS 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 16.0 per cent of the men and 11.8 per cent of the women using internet, while 7.1 per cent of the men and 5.1 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.

6.4.2 Constraints faced

- Low household ownership of internet and ICT devices limiting potential use of ICT for livelihood support.
- Households perceive that they do not need to use the internet,
- Households lack knowledge and skills on internet

6.4.3 Linkages to other sectors

- ICT has linkages to education, public service delivery and is enabler to business continuity during the pandemic and other disaster or emergency situations.

6.4.4 Emerging issues

- The County was not prepared for this pandemic however, they are using existing service providers in internet connections and as at now they are using ICT to run county programs.

- The revenue department has been automated and people are now paying parking fee, single permits using online platforms. The county is in liaison with service providers to ensure constant connectivity and network coverage. Every sub-county has one ICT center.

6.4.5 Opportunities with COVID-19 on ICT

- Working with the national government to connect the county to the fiber network under the NFOBI programme.

6.4.6 Recommendations

- i) Bridge the digital divide and provide ICT access to the “ICT have nots”, invest in programmes that will enable households acquire ICT assets such as smart phones and laptops.
- ii) 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 36.8 per cent to 100 per cent in line with the global agenda for Universal Access to Mobile Telephony¹².
- iii) Focus on bridging the gender digital divide by adopting specialized programmes for girls and women in building their ICT competence, skills and access to ICT assets and services
- iv) Adopt programmes to ensure ubiquitous access to reliable and affordable internet (internet everywhere) by applying aerial and satellite-based communication technologies.
- v) Collaborate with the Communications Authority and telecom service providers to utilize the Universal Service Fund¹³ as a “last resort” in providing ICT access in remote areas where market forces fail to expand access.
- vi) Enhance internet connectivity to public buildings and key trade centres to boost e-commerce especially for MSMEs in trade and business. The NFOBI programme can be expanded to the sub-county administrative units to further enable deployment of e-governance solutions.
- vii) Make ICT a standalone sector for planning and budget allocation. This is aimed at giving strategic prominence to planning, budgeting and investment in ICT.
- viii) 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.

¹² Universal access to mobile telephony: <http://www.itu.int/itu-news/manager/display.asp?lang=en&year=2007&issue=07&ipage=universal-telephony>

¹³ Universal Service Fund: <https://ca.go.ke/industry/universal-access/purpose-of-the-fund/>

7. Housing and urban development

The county has set up structures to showcase modern plans and a total of 8 units have been build. They county has identified county land and they are in the process of formalizing and documenting the county lands. The county is coming up with physical plans to help people to know what type of development are needed in an area.

7.1 Characteristics of the sector

There are seven urban centers in the County with a total population of 48.3 per cent males and 51.7 per cent females (table 7.1). The urban land area covers 112 square kilometers with a population density of 1,699 persons per sq.km

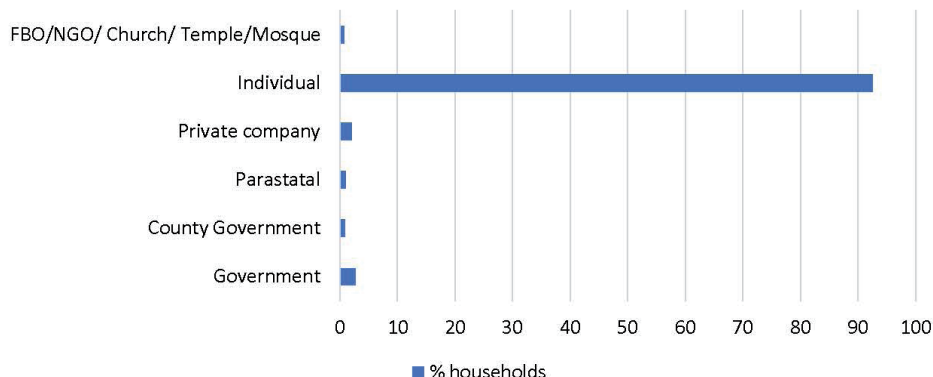
Table 7.1: Distribution of population by Urban Centers by gender

Urban centers	Population	Male	Female
Bungoma	68,031	32,903	35,126
Kimilili	56,050	27,225	28,824
Webuye	42,642	20,746	21,894
Chwele	9,797	4,487	5,310
Kapsokwony	7,077	3,435	3,641
Cheptais	4,419	2,124	2,295
Sirisia	2,096	991	1,105

Source: KNBS 2019- Kenya Population and Housing Census

The housing tenure is predominantly owner occupied at 82.0 per cent, with 19.9 per cent of the households under rental tenure. Individuals are the primary providers of rental housing at 92.6 per cent, followed by National Government (2.7 %); and Private Companies (2.1 %) as depicted in figure 7.1; For those who own homes, 96.7 per cent constructed the houses while 1.5 per cent purchased the house and 1.7 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 (65.2 %) compared to women (34.8 %) in the County (KIHBS, 2015/16).

7.2 Housing quality

On average, the main dwellings of houses in the County have 2.55 habitable rooms against an average household size of 5.80 persons in a household, translating to approximately 2.27 people per room. According to the UN-Habitat, overcrowding occurs when there are more than three people per room¹⁴. In terms of housing quality (building material), 24.12 per cent of houses are constructed using finished materials for walls, floor and roofing compared to 75.88 per cent constructed using rudimentary materials (KIHBS, 2015/16). Majority of households (94.8 %) have iron sheets for roofing, mud/cow dung walls (59.5 %) and dung floors (43.9 %) (KNBS, 2019).

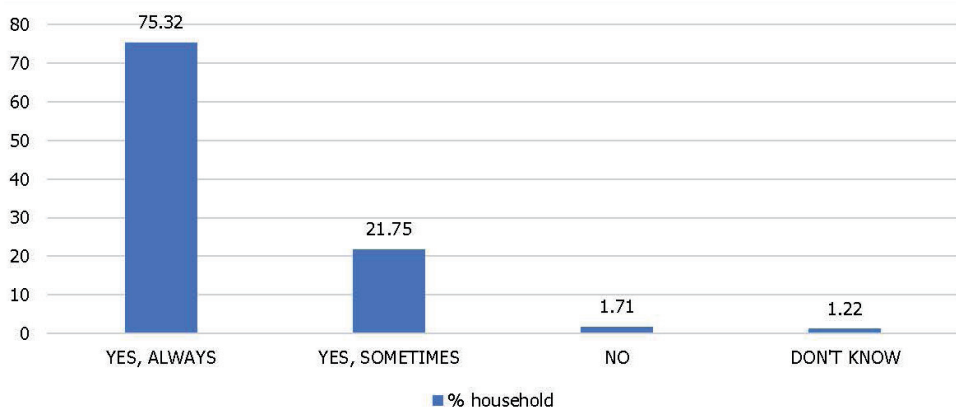
On average, rental households spend approximately Ksh 4928 on rent with a minimum of Ksh 350 and the maximum of Ksh 100000 (KNBS, 2020b). The county recorded a rent to income ratio of 14.99 per cent which is within the acceptable threshold of 30 per cent (KNBS, 2012/13).

7.3 Rent payment

With the advent of COVID-19 pandemic, households' ability to pay rent has been affected, with 38.63 per cent of the population indicating inability to pay rent on the agreed date for April 2020, compared to 44.87 per cent of the population that were able to pay rent on the agreed date and 75.3 per cent who paid rent on agreed date before COVID-19 pandemic (figure 7.2 and figure 7.3).

14 Household crowding measure: [https://www.ncbi.nlm.nih.gov/books/NBK535289/table/ch3.tab2/#:~:text=Overcrowding per cent20occurs per cent20if per cent20there per cent20are,per per cent20habitable per cent20room per cent20\(88\).&text=Crowding per cent20occurs per cent20if per cent20there per cent20is, per cent20rooms\) per cent20\(89\).](https://www.ncbi.nlm.nih.gov/books/NBK535289/table/ch3.tab2/#:~:text=Overcrowding per cent20occurs per cent20if per cent20there per cent20are,per per cent20habitable per cent20room per cent20(88).&text=Crowding per cent20occurs per cent20if per cent20there per cent20is, per cent20rooms) per cent20(89).)

Figure 7.2: Was the household paying rent on the agreed date with the landlord before COVID-19?



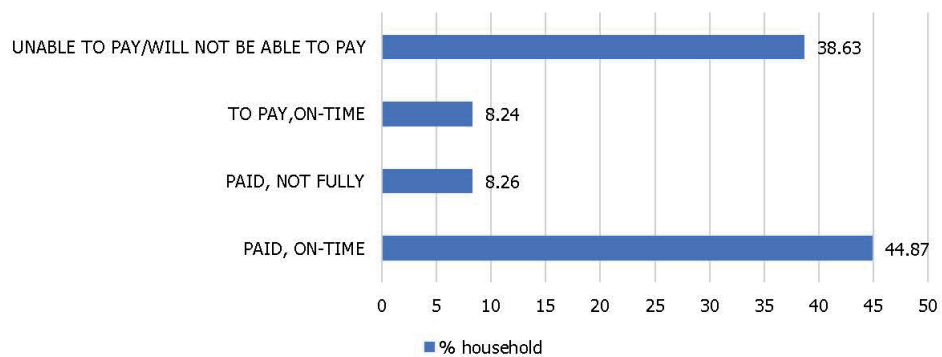
Source: KNBS COVID-19 Impact Survey 2020 wave 2

Figure 7.3: Has your household paid the rent for April 2020 on the agreed date

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

The main reason that has made households unable to pay rent was attributed to reduced incomes /earnings, reported by 67.4 per cent of the population (figure 7.4). The inability to pay rent was attributed to the COVID-19 pandemic by 97.81 per cent of the population.

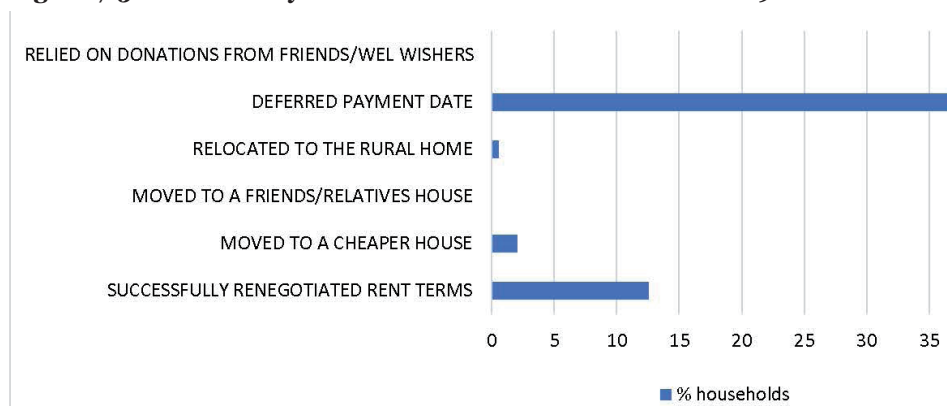
Figure 7.4: What is the MAIN reason that has made your household unable to pay rent?



Source: KNBS COVID-19 Impact Survey 2020 wave 2

Majority of the households (67.43 %) did not receive a waiver or relief on payment of rent from the landlord, with 10.5 per cent reporting a partial waiver and 2.69 per cent reporting a full waiver. To overcome the effects of Corona virus on payment on rent, majority 12.55 per cent of households renegotiated rent terms, while 42.65 per cent of households did not take any measures. Approximately 1.03 per cent used personal savings to pay rent (figure 7.5).

Figure 7.5: Measures by the household on effects of COVID-19 on rent



Source: KNBS COVID-19 Impact Survey 2020-Wave2

Regarding the primary energy source for cooking, 91.9 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.

7.4 Opportunities

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

7.5 Emerging Issues

- i. There are households that occupy dwellings constructed using rudimentary materials. The county has set up structures to showcase modern plans and a total of 8 units have been build. They county has identified county land and they are in the process of formalizing and documenting the county lands.
- ii. The county is coming up with physical plans to help people to know what type of development are needed in an area.

7.6 Recommendations

- i) Fastrack implementation of the affordable housing programme with a focus on improving living conditions and building quality applying finished materials for walls, floors and roofing.

- ii) Avail appropriate building technology for use by the public in house construction and improvement in every subcounty, that responds to local cultural and environmental circumstances.
- iii) Identify and designate urban centers for upgrade pursuant to provisions of the Urban Areas and Cities (amendment) Act, 2019, as provided in the CIDP
- iv) Formulate and seek approval of urban development plans and development control policies to support investment and development of urban areas.
- v) Adopt programmes aimed at an increasing household access to clean energy sources and technologies for cooking to mitigate against exposure to respiratory diseases.

8. Tourism

8.1 Characteristics of the Sector

The county is endowed with both natural and man-made tourist attractions such as:

- i. *Physical attractions / nature-based tourism:*
 - a. Resorts, monuments, town/city landmarks
- ii. *Safari / wildlife:*
 - a. The main wildlife found within the County include Elephants, Buffalo, Monkeys, Hyenas and Gazelles as well as plants species. Others include various bird species, insects, reptiles species. In the plan period, sustainable management of human-wildlife conflict will be enhanced to safeguard the wildlife. Mt. Elgon forest reserve measures 618.2 km² and is the largest conservation area in the County. It has a wide range of flora and fauna. Small private and community conservancies also exist in the County.
- iii. *Cultural and heritage tourism:*
 - a. Museums, artefacts, shrines, historical sites, drama, songs and dance.
- iv. *Agro-tourism; Agroforestry*
- v. *Health / medical tourism: Traditional medicine*
- vi. *Sports tourism:*
 - a. The County has various sports facilities including; Masinde Muliro at Kanduyi, Namutala at Kimilili, Mayuba at Sirisia, Nalondo at Kabuchai, Rai paper at Webuye, Sudi at Nzoia and the high altitude centre at Mt. Elgon. In the medium term, the County shall initiate the expansion and modernization of Masinde Muliro stadium into a world class sports complex. Other sports facilities will be upgraded in phases.

The county does not have any star-rated hotels. The County has several classified hotels and restaurants that makes up the hospitality industry. However, demand for modern hotels and restaurants surpass the supply, hence the need for Public-Private-Partnership initiatives to fill the gaps in the sector.

8.2 Constraints faced

The hospitality industry is well developed but has been closed due to the COVID-19 pandemic. The county government provided support through extending payment period for single business permits. Talks are ongoing with the chamber of commerce to see how the sector can be developed.

8.3 Linkages to other sectors

The Mombasa – Nairobi – Eldoret – Webuye – Malaba highway (A104) traverses through the County. It is a major link road for tourism, trade and commerce. The Webuye - Kitale highway (A1) has recently undergone re-construction, thereby positioning the County as the desired destination for attracting and retaining tourism-oriented investments.

8.4 Opportunities with COVID-19 in various sectors

- Improving sanitation aspects in tourism attraction sites.
- Promoting domestic and business / M.I.C.E tourism

8.5 Emerging Issues

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

8.6 Recommendations

- i. Considerable opportunities for expansion exist in safari, conference, business, and diaspora tourism. Furthermore, the County has great potential to expand products that are more recently in greater demand, such as nature/adventure tourism, cultural heritage tourism, and travel for wellness, health and retirement purposes.
- ii. Opportunities for investment in tourism do exist in the following tourism products and services: Tourism Circuit; Nature and Wildlife; Avi-tourism (Birding); Cable cars; Gliding services; Monkey tracking; Snake parks; Wildlife safaris; Mountain hiking; Hospitality and accommodation services; Honeymoon services/packages; Car hire services; Air ticketing; Day excursions; Fishing safaris; Travel guiding; Culture, Heritage and Community safaris; Adventure; Agro tourism and Ecotourism; Water sports; Health and wellness; Conference Tourism; Golf Resorts; Business and events Tourism; International Tourism Camp; Protection of tourism and regulation and Marketing the County for local and international tourism.
- iii. Public-private-partnership in development of business tourism, M.I.C.E facilities, cable cars between high hills; mountaineering tracks; nature trails in Mt Elgon Forest Reserve; sporting car tracks; ecological resorts; artificial lakes, dams and waterfalls; bird and animal watching platforms; bicycle riding tracks; marathon tracks; and sites for video shooting.
- iv. Build human capital along the tourism value chains: Promote private sector investment in tourism skills development with focus on hospitality management; Provide support to communities around/along tourist sites to engage in income generating activities.
- v. Improve management of the Tourism sector: Facilitate mechanisms for enhancing inter and intra sectoral linkages; facilitate a county tourist circuit.

vi. Increase conservation of natural and cultural Heritage: Policy formulation and review; promote protection of wildlife species; develop capacity of the County government to protect, conserve and restore critical tourist products.

9. Health

9.1 Characteristics of the sector

General health provision in the County

According to District Health Information Systems (DHIS) 2016, out of the total 197 health facilities in the County, 60 per cent are publicly owned, 30 per cent are private facilities, while 10 per cent are faith based organization. Bed occupancy within the County ranges between 60 per cent and 92 per cent. Kanduyi Sub-County hosts the County level IV hospital located in Bungoma Town. In this regard, the demand for inpatient services outweighs the bed capacity resulting in 115 per cent bed occupancy. There is need to expand the bed capacity in the County health system. Additionally, 1 nurse serves 2,661 patients against the recommend WHO ration of 1:400, hence the need to recruit more health personnel in the county hospitals.

Table 9.1: Health provision

Year	2018	2019/20
Health facility density		
Primary health facilities	130	237
Hospitals	11	20
Number of health facilities	141	257
Health facility density	2.4	3.7
Bed density		
Hospital beds	2,021	2,061
No. of Beds per 10,000 population	31	31
Human resource density		
Total workforce	1,464	4,014
Human Resources for Health (Technical)	1,217	2,979
Number per 10,000 population	8.2	17.2

Source: MOH, 2021

In 2019/2020, the number of health facilities in the county were 257 which comprised of 237 primary health facilities and 20 hospitals. This was an improvement from a total of 141 health facilities in the previous year, 2018. The number of beds per 10,000 population is 31 against the WHO recommendation of 30 beds per 10, 000 population. The health facilities and personnel serve a growing population, and the health workforce was approximately 4,014 representing 17.2 health workers per 10,000 population which is below 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	20.1
Government health centre	16.8
Government dispensary	44.3
Faith Based (church, Mission) Hospital / Clinic	1.1
Community Health	0.0
Private hospital / clinic	14.5
Nursing/ Maternity Home	0.0
Pharmacy/ chemist	0.6
Community health worker	0.4
Shop/ Kiosk	3.1
Traditional healer	0.1
Faith healer	0.4
Herbalist	0.3
Other	0.5
Number of Individuals ('000)	281

Source: KIHBS 2015/2016

Table 9.2 presents the distribution of population reported to have been sick or injured and the type of health provider they visited. Majority of the County residents who reported illness visited government dispensaries at 44.3 per cent. About 20.1 per cent of county residents who reported illness also visited government hospitals and 14.5 per cent visited private hospitals. About 16.8 per cent visited government health centers.

9.2 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, 6.5 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 71.7 per cent of the population. Employer contributory insurance cover was reported by 2.2 per cent of the population. Private contributions to insurance cover were reported by 0.4 per cent of the population.

Table 9.3: Percentage Distribution of the County's Population with Health Insurance Cover (%)

Source of Health Insurance	Percentage Distribution of the Population (%)
Population ('000)	1,553
Share of population with health insurance (%)	6.5
NHIF	71.7
Private-Contributory	0.4
Private-Non-Contributory	0.0
Employer-Contributory	2.2
Employer-Non-Contributory	0.0
Other	27.6
Number of Individuals ('000)	101

Source: KIHBS 2015/16

9.3 Place of delivery

In the 2015/16 KIHBS, women in Bungoma 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 50.3 per cent of children were delivered at home which is higher than the national percentage of 31.3 per cent. The proportion of children born in hospitals, health centres, dispensary/clinics was 32.0 per cent, 10.5 per cent, and 3.3 per cent respectively.

Table 9.4: Proportion of Children aged 0-59 Months by Place of Delivery (%)

Place of Delivery	Proportion of Children aged 0-59 Months by place of delivery (%)
Hospital	32.0
Health Centre	10.5
Clinic/ Dispensary	3.3
Maternity Home	1.0
At Home	50.3
Other	1.6
Not stated	1.4
Number of Individuals ('000)	237

Source: KIHBS 2015/16

9.4 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 29.5 per cent of the children aged 12-23 months were fully immunized against measles at 9 months while 2.4 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	42.1
	Yes, Not Seen	42.3
	No	15.1
	Not stated	0.5
Measles Vaccination	Measles I (At 9 months Card)	29.5
	Measles II (At 18 months Card)	2.4
	Measles II (Mother/ Guardian memory)	48.9
	Either (card or memory)	78.4
Number of Individuals ('000)		237

Source: KIHBS 2015/16

Health outputs

The county has improved its health status in some of key health indicators while some are still below the national averages. For Maternal health care WHO recommends a minimum of four antenatal visits. In Bungoma County, almost nine in ten mothers received ANC more than once and half of the mothers received ANC at least four times. The percentage of women from urban areas (56 %) who received ANC four or more times was higher than those from rural areas (46 %). In the same reporting period, 41 per cent of births were delivered by skilled personnel while 58 per cent of children were born at home. Safe motherhood programmes put emphasis on all women and newborns receiving a health check within two days of delivery.

Protein and energy malnutrition are still below the national averages and targets. All forms of malnutrition (chronic, moderate and severe) exist. The proportion of children under 5 years who are stunting stood at 26 per cent same as the national average. The proportion of children who are underweight stands at 11 per cent while wasting rate is at 4 per cent.

WHO Recommended Routine Immunizations against tuberculosis, diphtheria, pertussis, tetanus, polio, measles, hepatitis B, haemophilus influenzae type b, pneumonia or

meningitis, rotavirus, and rubella in Bungoma County, 76 per cent of children are fully immunized against vaccine preventable childhood diseases against a national average of 68 per cent. Children whose mothers had secondary or higher education had higher vaccination rates than those whose mothers had primary education. Immunization is one of the major considerations in the health sector since it promotes the longevity of life span and reduces child mortality. It is also critical since a healthy population promotes socio economic development in the society. Infant mortality and under-five mortality rates for the county were relatively high.

There poor health sector performance was caused by among others: low staffing levels, inadequate and inconsistent information, faulty assessment tools, hard to reach areas, inadequate nutrition commodities and low immunization uptake.

Table 9.6: Health indicators in Bungoma county

Key Health Indicators	County Estimates
Maternal and Child Services	
<i>Skilled delivery (%)</i>	41.4
<i>Children born at home</i>	58.1
<i>Fully immunized child</i>	75.9
Child Mortality	
<i>Infant mortality (*1000)</i>	32
<i>Under-5 mortality (*1000)</i>	110
<i>Neo-natal mortality (*1000)</i>	18
Nutrition Status	
<i>Stunted children (%)</i>	26
<i>Wasted children (%)</i>	4
<i>Underweight children (%)</i>	11
HIV (%)	
<i>HIV adult prevalence (%)</i>	3.2
<i>Children with HIV(No.)</i>	0
<i>ART adult coverage (%)</i>	81
<i>ART children coverage (%)</i>	88

Source: KDHS, 2014; DHIS 2018

9.5 Effects of COVID-19

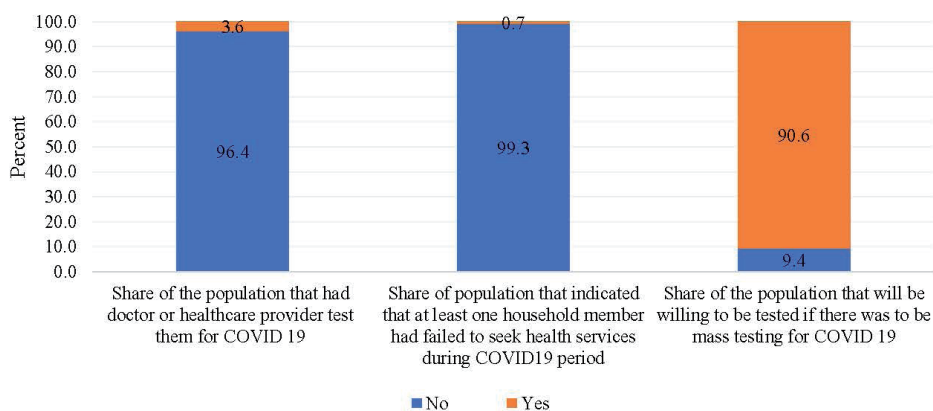
Being a pandemic not foreseen, the county was not prepared at first place but had to put in urgent measures to handle the pandemic. Measures borrowing of funds for sensitization of the county executives, health care workers, civil societies, elected leaders, procurement of PPE under emergency conditions and supporting of their own institutions to start local manufacturing of PPE at affordable price. The county health systems put in place 12 Trainers of Trainee members team were trained on COVID-19 to further offer training of

other health care workers and as of June 2020, 600 health care workers had been trained on COVID-19 and the process is ongoing.

Bungoma county has an isolation centre at Webuye sub county hospital with only 10 available isolation beds. The county hospitals have been hit by a major setback as the available healthcare providers threatening to down their tools over issues of delayed allowances. The sector is very much constrained, the county had allocated Ksh 3 billion to the sector in the last financial year when COVID-19 was not envisaged. However, with support of the national government, the county is in the process of hiring more staffs and/or health workers to boost the manpower. Health facilities are being improved across the county with respect to the current situation.

In June 2020 Kenya National Bureaus of Statistics conducted a survey of COVID-19. The results showed that the share of the population that had doctor or healthcare provider testing or confirming to them the status in regards COVID 19 was estimated at 3.6 per cent in 2020 (Covid 19, Wave 2 survey). Further only 0.7 per cent of the population indicated that at least one household member had failed to seek health services and 90.6 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)

The Bukusu culture in Bungoma county has written off the GOK directives on suspension of social gatherings to have their annual Circumcision of boys who have gone through the set stages of circumcision with claims that they are not ready to suspend their culture. This could lead to high likelihood on the spike of COVID-19 cases unless protocols and restrictive measures are put into place.

In addition, teenage pregnancies, Sexual and Gender Based Violence (SGBV) are some of the health issues affecting the youths in County. The closure of schools due to COVID-19 has not been any good news, the social impact on the children who are now at home has been huge, the girl child has been affected, this has seen one in ten girls being victims of teenage pregnancies this is alarming. Other health problems affecting youths are Malaria, abortion, abortion dug and substance abuse (DSA), malaria, mental health, malnutrition sexually transmitted infections such as HIV and AIDS. Some of contributing factors

include idleness, lack of health education, negative cultures as highlighted above, parental negligence and lack of guidance, peer pressure, illiteracy, and high poverty levels. The end results of these problems are mental illness, suicide, school dropout, low economic and social productivity, low self-esteem and stigma and premature deaths. Therefore, action need to be taken to prevent such from occurring. This can be achieved through parental guidance, economic empowerment, sex education, employment creation among the youths, early school enrolment and guidance and counselling.

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

The sector has linkages with the Education, ICT, WASH and Agriculture sectors. There is a direct proportionality between education and health. The high the education level of members of the county, the healthier they are. High level of education reduces instances of disease outbreaks due to ignorance. This particularly reduces health diseases such as sexually transmitted among the youths and adults. Advancement in ICT also 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. A good example is the scan for pregnant mothers and cancer patients. Some countries such as Rwanda, drones are being used to deliver bloods. This is helping in mortality rate reduction. Good water and sewerage facilities also contributes greatly to 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. This reduces cases of family conflicts and stresses, hence reducing mental diseases.

9.6 Opportunities with COVID-19 in Health Sector

COVID-19 had led to the improvement of the health facilities in Bungoma County. It had also created awareness on the need to improve the capacity of the TVET institutions, which had also been useful in finding local solution to production of requisite protective gears. COVID-19 had also enhanced the use of technology in transacting various county business online. COVID-19 has also contributed to the ICT development where meetings are being held virtually without physical contacts.

9.7 Emerging issues

The county to 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.

To realize these new milestones, the county will need to address various challenges including limited funds relative to health needs for the county, including those for children and mothers; sexual and reproductive health needs for all; and access to medical and psychosocial support for survivors of GBV. Other issues include Medicalization of female genital mutilation and cross border cutting; Focus on demographic dividend as a means of addressing youth issues and harnessing their potential to spur socio- economic development; Youth radicalization; High youth vulnerability to HIV/AIDS and STIs; Increased youth involvement in gambling, cyber-crime, abuse of social media; Ritual killings for persons with albinism and Violent extremism.

9.8 Recommendations

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

- (i) The county to build or enhance existing information communication and technology (ICT) in the county. Currently, the county has been using a weak existing service provider in internet connection which have been very instrumental in running the county programs. ICT has therefore proved its usefulness and efficiency during this period hence need more exploitation.
- (ii) The county to construct and equip two (2) quarantine centres to facilitate relocation of existing quarantine Centre at Webuye medical training Centre and employ more skilled health workers to provide equitable services during the pandemics. Currently 1 nurse serves 2,661 patients, hence the need to recruit more health personnel to bring the ratio to WHO recommendations of 1:230.
- (iii) There is need to create awareness on availability and importance of free maternity services and address other constraints to access of maternal health services in the county to address fear of contracting COVID-19 in event of visiting a health facility.
- (iv) The county to utilize community health workers to sensitize the public on the HIV/AIDS to mitigate its spread during the pandemic as well as improving antenatal care by providing pregnant women with more antenatal follow-up services and treated nets.
- (v) Provide health care officers with personal protective equipment and surgical masks to reduce risks of infection. This will be achieved through supporting expansion of technical and vocational training institutions such as Wekelekha Vocational training center where masks are being produced by students and staff.
- (vi) Advocate for collaboration between Moi University, Webuye Hospital and Kibabii University to help researching on contagious infections (including COVID-19) in the county.

- (vii) Install hand washing facilities in open places, food establishment and markets, and incorporate them in schedule review and observing plans.
- (viii) Create awareness on availability and importance of free maternity services and address other constraints to access of maternal health services in the county to address the challenges being caused by the fear of contracting COVID-19 in event of visiting a health facility.
- (ix) Allocate resources towards nutrition specific and sensitive programmes in the county by establishing specific budget lines for nutrition support initiatives.

10. Education and training

10.1 Characteristics of the sector

10.1.1 General Education Provision in the County

Bungoma County has a total of 900 pre-primary centres, 805 primary and 188 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.

About 90 per cent of public primary schools in Bungoma 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).

The County has a fully-fledged university - Kibabii which was chartered in 2015. It is located 8.2 Km from Bungoma town, along the Chwele-kimilili road. Other major institutions of higher education include: MMUST campus, University of Nairobi extramural center, Sang'alo Institute of Science and Technology, Matili Technical Training College and Kibabii Diploma Teachers College. In addition, the County hosts three Medical training colleges at Webuye, Bungoma and Sichei.

TVET institutions contribute to creation of socio- economic success by producing skills intensive human resources. The County has 97 TVET institutions. To ensure quality teaching and learning the County will implement a comprehensive programme targeting to improve TVET infrastructure, human resources and teaching and learning materials

10.2 Gross Attendance Ratio (GAR) and Net Attendance Ratio (NAR)

The Gross Attendance Rate (GAR) for pre-primary school was 101.5 per cent while that of primary school and secondary school was 113.2 and 66 per cent respectively in 2015/16 (Table 10.1). Gross Attendance Ratio (GAR) represents 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. The GAR for pre-primary school was higher for females, 105.5 per cent, compared to that for males, 97.7 per cent. The GAR for primary school was higher for males, 116.8 per cent, compared to that for females, 109.8 per cent. The GAR for secondary school was higher for males, 67 per cent, compared to that for females, 64.9 per cent. Net Attendance Ratio (NAR) is the total number of persons in the official school age group attending a specific education level to the total population in that age group. Table 10.1 shows that total NAR for pre-primary, primary and secondary school was 59.5 per cent, 82.1 per cent and 40.5 per cent, respectively.

Table 10.1 Gross Attendance Ratio and Net Attendance Ratio by Educational Level in Bungoma County

Education Level	Gender	Gross Attendance Ratio	Net Attendance Ratio
Pre-Primary School	Male	97.7	58.3
	Female	105.4	61.5
	Total	101.5	59.5
Primary School	Male	116.8	80.8
	Female	109.8	83.2
	Total	113.2	82.1
Secondary School	Male	67	37.5
	Female	64.9	43.8
	Total	66	40.5

Source: KIHBS 2015/16

10.3 Basic education gross and net enrolment rate

The preprimary gross enrolment rate in the county was 97.7 per cent in 2019 and while the net enrolment rate was 53 per cent (table 10.2). The Gross Primary and Secondary enrolment rates stood at 110.4 per cent and 80.4 per cent respectively in 2019 while the Net enrolment rates (NER) were 80.4 per cent and 39.9 per cent for primary school and secondary school respectively during the same period.

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

Preprimary	Total
Gross Enrollment rate (GER) (%)	97.7
Net Enrollment rate (NER) (%)	53
Gender parity index	0.96
Primary	
Gross Enrollment rate (GER)(%)	110.4
Net Enrollment rate (NER) (%)	80.4
Gender parity index	0.96
Secondary	
Gross Enrollment rate (GER) (%)	77.5
Net Enrollment rate (NER) (%)	39.9
Gender parity index	1.05

Source: Education statistical booklets 2014-2019

10.3.1 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 was 88 per cent with the male population being more literate (91.5 %) compared to their female counterparts (84.9 %).

Table 10.3: Percentage Distribution of Population aged 15 Years and above by Ability to Read and Write (%)

	Ability to Read and Write	Percentage Distribution (%)
Overall county	Literate	88
	Illiterate	10.6
	Not Stated	1.4
	Number of Individuals ('000)	812
Male	Literate	91.5
	Illiterate	7.3
	Not Stated	1.2
	Number of Individuals ('000)	387
Female	Literate	84.9
	Illiterate	13.6
	Not Stated	1.6
	Number of Individuals ('000)	425

Source: KIHBS 2015/16

10.3.2 Educational Attainment

The distribution of population aged 3 years and above by educational qualification attained is presented in Table 10.4. Approximately 59.3 per cent of the population do not have any educational qualification. This is high than the national percentage of 49.7. Only 1 per cent of the population has attained university degree. The proportion of the population with CPE/KCPE qualification is 23.5 per cent and that of KCE/ KCSE qualification is 8.6 per cent.

The Education department in Bungoma County is committed to the provision of quality education and training in the county, including providing support to all levels of education in line with the Provisions of the Intergovernmental Act, 2012. The key achievements realized by the sector include; Awarded bursaries worth Ksh 580M in the last 3 financial

years; Awarded scholarships to a total of 1,550 beneficiaries in the last 3 years; Distribution of learning materials in 805 ECDE centres; Construction and completion of 135 ECDE classrooms and toilets; Construction and completion of workshops in 37 VTCs; Construction of an administration block at Mwiya VTC; Construction of a hostel at Naitiri VTC; Construction of an administration block Sinoko VTC; Purchase of land in the FY 2017/18 for 23 VTCs.

Table 10.4: Percentage Distribution of Population by Highest Educational Qualification

Highest Educational Qualification	Percentage Distribution of Population
None	59.3
CPE/ KCPE	23.5
KAPE	0.4
KJSE	0.1
KCE/ KCSE	8.6
KACE/ EAACE	0
Certificate	1.8
Diploma	1.2
Degree	1
Basic/post literacy certificate	0
Other	0
Not Stated	4
Number of Individuals ('000)	1,324

Source: KIHBS 2015/16

Percentage distribution of Bungoma County residents aged 3 years and above who had ever attended school by the highest level reached, and sex is presented in 10.5. The proportion of males who had reached primary school level was 55.9 per cent while that of females was 62 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, 12.7 per cent of males and 12.3 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, with male recording a higher percentage than female at 2 per cent and 1.2 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 Bungoma County (%)

Educational Level	Gender	Percentage Distribution of Population 3 Years and above
Pre-primary	Male	12.7
	Female	12.3
Primary	Male	55.9
	Female	62
Post primary vocational	Male	1.1
	Female	0.5
Secondary	Male	20.9
	Female	17.4
College (Middle level)	Male	3.4
	Female	2.9
University	Male	2
	Female	1.2
Madrassa / Duksi	Male	0
	Female	0
Other	Male	0.1
	Female	0.1
Not Stated	Male	3.9
	Female	3.7
Number of Individuals ('000)	Male	636
	Female	687

Source: KIHBS 2015/16

An Adult education supports the County objective of providing access to quality education for all. It helps to expand opportunities for the adult population thereby contributing to improved productivity. The adult education centres declined both at National and County level (from 8,376 in 2015 to 7,692 in 2016). The County therefore needs to focus on measures to improve the learning and teaching environment in these centres to attract and retain adult learners.

According to the (NAYS, 2014), drugs and substance abuse, child labour, absenteeism of teachers and students were the main education problems affecting young people. The participants attributed the problems to peer pressure among youth as well as poverty which leads to school dropout as students cannot afford school fees. Child labour as an issue was extensively discussed by the male young people aged 10-14 in this county. The following quote gives the driving force behind drug and substance abuse. The consequences of these education problems include school dropout due to drug and substance abuse, peer pressure which lead to teenage pregnancy and poverty as most of the students drop out

of school to work to raise school fees. To address health problems among youths, include increased law enforcement by the government through strict rules and regulations directed to those selling drugs and liquor to youth under 18 years of age, government intervention on matters concerning free education as some of the students cannot afford school fees due to poverty and to support teachers so as to ensure quality education. Currently there is the Youth for Youth (Y4Y) project used a different approach to reach youths with important information on HIV/AIDS and reproductive health where secondary school pupils' mentor primary school pupils with information they had been provided.

Just like other counties, many people in Bungoma County lost their jobs because of the COVID-19 pandemic. Private schools were forced to lay off both teaching and support (casuals) staff because they could not sustain their salaries. Public schools have also faced challenges in making payment for the other expenses such as electricity, water and security bills. This is because the national government halted the release of money to the schools. Apart from the other expenses, public schools could not pay teachers who were hired on contracts and were under BOGs.

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

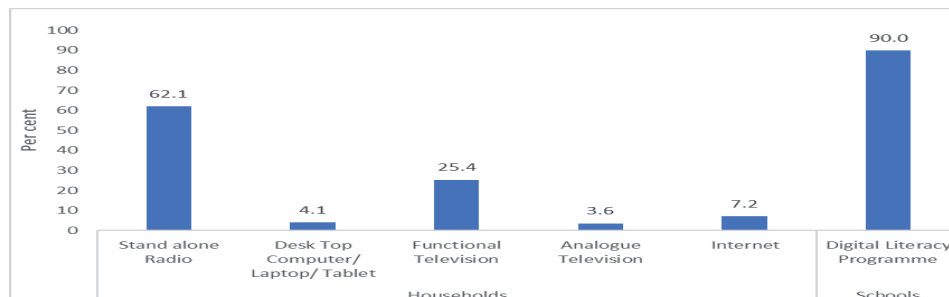
Water is a shared commodity between community and the schools. The county government to ensure that all learning institutions have water for proper hygiene during this COVID-19 period. School uniforms and learning materials such as books are provided by parents. There is need to cover days lost through make up programs both at home and in schools. There is also Need for employment of more teachers in case of double tracks.

Closure of all schools led to loss to learning time and teaching time. The school infrastructure in the County is not only limited but also is of poor quality. Limited access and capacity in ICT integration in education leading to limited and or no learning while at home due to COVID-19.

10.4 ICT in education

The entire county is not fully networked hence limited access to the e-learning programme for the larger portion of school children at home. Although almost all schools had access to the digital literacy programme, only 7.2 per cent of households had access to internet. This means that doing online classes in the county is not easy since 92.8 per cent do not have internet access. Additionally, online classes require one to have at least a desktop computer/laptop or tablet. From figure 2, only 4.1 per cent of the county households have access to such gadgets. Therefore, conducting online classes would leave the other 93.9 per cent of the population behind. Another challenge is the inability of the private schools to sustain their teachers while they are not in operation. There is also a problem of uncertainty as it is not clear when the schools are likely to open. This makes planning for the future classes and programs difficult.

Figure 10.1: Access to ICT in Households and Schools



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

Line Ministries and Departments such as Health, MOE and Development Partners like UNICEF, AMREF are involved in Child immunization through multi-sectoral approach. In addition, Through ICT, other children within the county have managed to continue with their schoolwork at home. Health is concerned with operation of education sector as it defined the guidelines on the measure to put in place in preparation to re-open schools under the new normal. Education is also directly linked to agriculture sector to enhance food security. Some of school dropout cases are due to lack of food. That is why agriculture comes in to provide food for the students enabling them to concentrate in classes.

10.5 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. COVID-19 pandemic provided opportunity for the county government to forge partnerships to ensure enough network coverage across all the sub-counties and counties in the Lake region. There is also the opportunity of exploring online classes. This if effective, can save time spent on travelling from home to schools to teach. Teachers will be able to reach at the comfort of their seats. This can reduce the cases of lateness and absenteeism. Learning from homes will also reduce accidents and injuries among pupils at school. It will also reduce indiscipline and drug abuse as parents will be able to closely monitor their children at home. The disease has also created an opportunity for creativity among students who are involved in making of ventilators and researching on vaccines.

10.6 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.

10.7 Recommendations

- (i) The County with support from stakeholders to continue investing in early childhood development through infrastructural development; deployment of ECDE teachers and provision of sanitation facilities.
- (ii) The county to 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 enhance the promotion of remedial/catch up lessons for learners who might have lagged 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.

11. Social Protection

11.1 Characteristics of the sector

11.1.1 Sources of vulnerabilities in the County

Bungoma county has an estimated population of 1,670,570 of which, 1.2 per cent are people living with disability and about 3.6 per cent of the population are older people above the age of 65 years. The county has an overall poverty rate of 79 per cent which is higher than the national average which stands at 36 per cent. Further, the county a food poverty rate of 36 per cent, and a resulting multidimensional poverty rate of about 33 per cent. An average of 24 per cent of children in the county are stunted.

11.1.2 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 droughts and floods and death of family member at 16.8 and 20 per cent, respectively. Crop disease or crop pests were experienced by 4.5 per cent of households while the death of livestock affected 8.8 per cent of the households. Robbery / Burglary / Assault and large price of food are other experienced shocks affecting 4 per cent and 3.9 per cent of households, respectively.

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	16.8
Crop disease or crop pests	4.5
Livestock died	8.8
Livestock were stolen	3.4
Household business failure, nonagricultural	3.9
Loss of salaried employment or non-payment of salary	2
End of regular assistance, aid, or remittances from outside the household	0.2
Large fall in sale prices for crops	4.6
Large rise in price of food	3.9
Large rise in agricultural input prices	2

Severe water shortage	1
Birth in the household	3
Death of household head	3
Death of working member of household	1
Death of other family Member	20
Break-up of the household	4
Bread winner jailed	1
Fire	1
Robbery / Burglary / Assault	4
Carjacking	-
Dwelling damaged, destroyed	0
Eviction	-
Ethnic/ Clan Clashes	-
Conflict	1
HIV/ AIDS	1
Other	7
Number of households with Shock	282,000

11.2 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, 45 per cent of the households received cash transfers. A higher proportion of households received transfers from within the country (73 %), mainly from individuals (76 %) while external transfers constituted 29 per cent.

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

		Beneficiaries
	Total Number of Households	321,000
	<i>Households receiving transfers (%)</i>	<i>45</i>
From Inside Kenya	Individual	8,513
	Non-Profit Institution	58
	National Government	723
	County Government	23
	Corporate Sector	187
Inside Kenya		9,504
Outside Kenya		387
Total		9,275
Number of households that received transfers		144,000

To cushion the public, the county did a supplementary budget which allocated funds to support venerable members of the community, from this budget, about 6000 households have been cushioned -the county has bought food stuffs to deserving households within the county. The county has also reviewed period for loan repayment by providing an extension for the same. The transport industry has been affected, and to keep them afloat, the county has waived packing fees for both the matatu industry and boda boda.

The county has also waived energy as well as extension of payment of property rates. The county has also incorporated locals in the renovation and construction of various county roads to ensure more resources goes to the pockets of the locals. Through agriculture department, subsidies such as fertilizers, seeds to enhance production of food have provided while extension services have been enhanced for people to provide valuable information to famers on best farming techniques and practices. Further, farmers have been allowed specifically those trading in perishable products like vegetables to apply their trade along the road since markets are closed to avoid overcrowding and to keep social distancing.

In a bid to create sustainable employment opportunities for the youthful population, The CS for Agriculture has seen to it to inspect Nzoia-sugar company and then formulate reforms that shall enable the county government achieve its development agenda

The European Union in a bid to assist Kenya agricultural ventures to access training innovation and entrepreneurship, it has mapped out Bungoma county as among the beneficiary counties in its targeted youth and women led projects among the 200 selected agribusiness for the programme. This will in turn lead to creation of up to 17,000 jobs in selected counties thus increasing small holder production, improving food security and boosting household income.

The County has vibrant youthful population with energy and innovative minds that can exploit the potential offered in sports, culture and arts. In the medium term, the County shall realize this objective by investing in ICT hubs. In a bid to support the youths' talents

and abilities, the County through Private Public Partnership arrangement will strive to establish integrated talent academies, to offer soccer, volleyball, media and creative arts through Youth Talent Academy at Moi International Sports centre Kasarani. Bungoma County has various sports facilities including; Masinde Muliro at Kanduyi, Namutala at Kimilili, Mayuba at Sirisia, Nalondo at Kabuchai, Rai paper at Webuye, Sudi at Nzoia and the high altitude centre at Mt. Elgon. In the medium term, the County shall initiate the expansion and modernization of Masinde Muliro stadium into a world class sports complex. Other sports facilities will be upgraded in phases.

To create sustainable and equitable social cultural and economic empowerment to all, the gender and culture sector is committed to achieve this by formulating, mainstreaming and implementing policies that respond to gender and cultural issues through coordinated strategies that engender a sustained and balanced social, cultural and economic development of the County as well as empowering the vulnerable and marginalized groups and areas. Among the strategies put in place are;

1. BUCOWEF, BUCODEF
2. Cash Transfer fund, construction of two Mausoleums for Sudi Namachanja and Elijah Wa Nameme
3. Refurbishment of Sang'alo Cultural Centre.
4. The sector promoted music and cultural festivals within and outside the County and also recognized and awarded medals to 42 heroes and heroines.

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

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

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

Loss of jobs and business opportunities have also led to increase in poverty and declining of people welfare. With loss of jobs and businesses, most youths are likely to be involved in the activities such as crimes, prostitution, and other social evils. Job losses has also increased suffering among county residents. In addition, decreased county revenue makes it hard for the county to cater for the needy cases and mostly those affected by Covid 19.

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 are 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 as well as 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 for and importance of engaging in social protection programmes such as insurance and investment for future to benefit after retirements. With good education, one can understand government role in ensuring good life for its citizens.

11.3 Opportunities with COVID-19 in social protection

COVID-19 pandemic provided opportunity for the county government to forge partnerships to ensure enough network coverage across all the sub-counties and counties in the LREB region. There is also the opportunity of exploring other measure of cushioning vulnerable people. There is also needed to invest in other form of social protection such as cash transfers as a county initiative.

County government has identified 141 supervisors and 4,400 youths across Bungoma County who will work under national hygiene programme “kazi-mtaani” programme. Due to Covid 19, many youths had lost jobs hence remaining idle thus engaging in social evils such as drug and immoral behaviors. This programme will therefore keep them busy reducing pregnancy cases. The county had also trained 250 youths in the Ajira programme. It aims at increasing this number to 3400 in the year 2022

To revive the economy, the county is likely to be forced to review its CIDP to focus on the expansion of the main productive areas such as agriculture to enhance food security, tourism and commerce as well to tap into her competitive advantage within the region. The pandemic has also provided an opportunity for the expansion of the use of technology which has really guided the operation of all sectors during this period where most employees worked from home. The county is also involved in the intergovernmental discussions which are focused on working on modalities on securing the economy on areas such as public health, national security and agriculture.

11.4 Emerging Issues

There was potential of exploiting the opportunities within the regional block. Through partnerships the member counties had ensured training of the medical staffs. There are emerging talents among the youths which can be tapped to benefit the county especially this time of COVID -19 such as making of ICU bed, masks and PPEs. Unemployment rate has also increased due to many people losing the sources of income. There is Lack of clear policy to cushion youths and vulnerable in the case of pandemics.

11.5 Recommendations

Protection of the vulnerable groups amidst the Covid -19 pandemic will play a key role in social and economic development of the groups and overall growth in the county. In so doing, the county will:

- i) Design and implement a disability grant to all those who are severely disabled. This will benefit over majority of people who living with disabilities in the county.
- ii) Partner with other key stakeholders within the regional block to ensure borders are manned and enhance cross border screening. This would drastically slow the spread of the virus.
- iii) 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. A programme to take of social needs for the people affected by the COVID-19 need to be put in place.
- iv) Protect vulnerable groups in the population from health costs by enhancing NHIF coverage; improving knowledge of the existing insurance schemes to improve uptake; and subsidizing NHIF premiums for targeted vulnerable populations.

The social and economic effects of the COVID-19 pandemic increased households' susceptibility to Gender Based Violence (GBV) in the county. Response measures taken to contain the COVID-19 pandemic, such as movement restrictions, lockdown and curfew hours, led to loss of income, isolation, high levels of stress and anxiety exposing household members to psychological, economic, sexual violence and physical harm as couples spend more time in close contact. In Bungoma county, domestic violence was reported to be on the rise amidst COVID-19. Based on the May 2020 KNBS COVID_19 survey, 45.7 per cent of the respondents in the county indicated to have witnessed or heard of domestic violence in the community. Further, the Healthcare Assistance Kenya (HAK) reported 6 GBV cases in April, of which 3 were from women, 2 from men and 1 from a boy.

To address these challenges, Bungoma county will we take the following measures:

- i) Launch hotlines/helplines using toll-free calls and SMS numbers for gender-based violence victims. This will assist GBV victims access support and guidance to include psycho-social support, counselling and health care.
- ii) Establish platforms for Tele Counselors to offer virtual counseling services to affected persons during emergencies/pandemics to mitigate the effects of the high levels of stress and anxiety associated with such emergencies
- iii) Online sensitization and GBV education as a preventive measure on the prevalence of GBV during emergencies periods. The county governments can identify GBV champions to serve as agents change, changing harmful attitudes and behavior in communities that lead to GBV.
- iv) Lastly, designate gender safe spaces to provide accommodation GBV survivors.

12. Labour Participation

12.1 Characteristics of the Sector

12.1.1 Sources of employment in the County

The main economic activity in Bungoma is sugar, the county boast one of the largest sugar factories and a few small-holder sugar mills, the county also practices farming. The agricultural set up has been the main source of economic income for many in the region as well as the service industry. The formal sector employment accounts for less than 20 per cent of the County's labour force while the rest are wage earners in the informal sectors such as small and medium enterprises, housing, agriculture, and rural development.

The main factories and industries in the County include Nzoia Sugar Company, Rai paper, Malakisi Tobacco Leaf Centre, Webuye Heavy Chemicals Industry, Kitinda Dairy, Musese and Chesikaki coffee factories. They rely on raw materials produced locally. In the medium term, efforts will be made to sustain production of raw materials to enable industries operate optimally. Malakisi ginnery will be revived to cater for the cotton farming communities to improve their livelihoods.

Drivers of industrialization in Bungoma County include Strategic location, raw materials, existing infrastructure and regional markets. Industrial potential exists in agro-industrial processing, Paper and Paper manufacture using soft tissue pulp materials, Meat and dairy and sanitary products. These investments can be supported through additional investments in green energy and business development services for private sector facilitation into industrial zones. All industrial investments can best be undertaken in the proposed County Industrial Park.

Table 12.1: Distribution of Population Age 5 Years and above by Activity Status, and Sex in the County

	Male	Female	Total
Population	699,238	745,877	1,445,146
Working	291,427	338,171	629,607
Seeking Work/ No Work Available	24,655	15,971	40,627
Persons outside the Labour Force	383,084	391,674	774,779
Not Stated	72	61	133
<i>per cent Working</i>	<i>92.2</i>	<i>95.5</i>	<i>93.9</i>
<i>per cent Seeking Work/ No Work Available</i>	<i>7.8</i>	<i>4.5</i>	<i>6.1</i>

Source: KNBS, 2019

Distribution of Population Age 5 Years and above by Activity Status, and Sex in the County is

shown in Table 12.1 above. An assessment on county labor force show the county population aged 15–64 years (labour force) was estimated at 670,234 people of whom 629,607 were working and 40,627 were seeking work but work was not available representing an unemployment rate of 6.1 per cent (Kenya Population and Housing Census, 2019).

About 14 per cent of the residents are with no formal education, 10 per cent of those with primary education and 19 per cent of those with secondary or above level of education are working for pay. Most people in the county are self-employed, running SMEs and agribusinesses. The county has measures to expand trading activities as well as provision of affordable credit in the form of financial and non-financial support to the business community as well as exploiting the PPP approaches for enhanced outcomes.

12.2 Effects of COVID-19

The pandemic affected many opportunities, many are people forced to work at home while others in the service industry and private sectors were laid off. The closing of market and limitation of trading hours led to losses and closure of businesses which in turn resulted to stresses and depression. Additionally, with the close of businesses, unemployment rate in the county was on the rise. Further, the social economic impact of the novel Coronavirus resulted to loss of jobs, particularly in the informal sector which employ most people in the county.

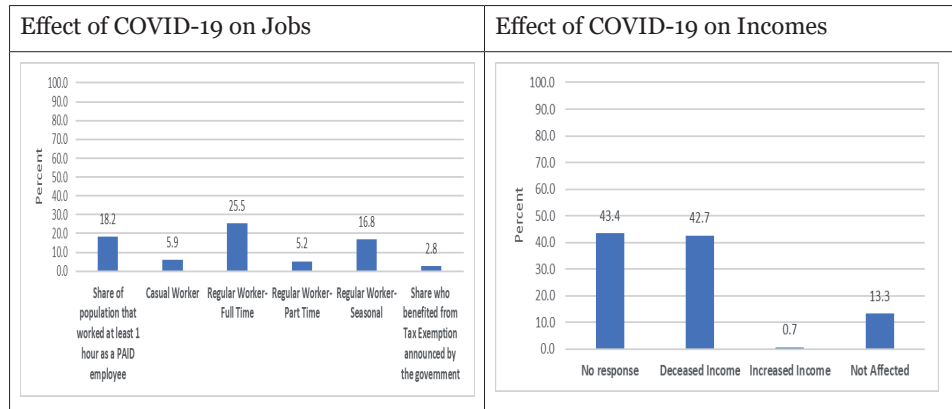
The guidelines and restrictions affected the agricultural sectors as the time of attending to the farms reduced. Some service sectors like transport were not working to full capacity thereby affecting the disposable income for many. The loss of jobs in the matatu and boda-boda industry had directly impacted 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.

In education sector the workers employed by school Board of management (BOM) lost their jobs as well as those employed by Private schools because the schools could not sustain their salaries due to closure of schools. Public schools also faced challenges in making payment for the other expenses such as electricity and security bills.

According to the May 2020 KNBS COVID-19 Survey, 15.9 per cent of the county labour force worked at least for 1 hour for pay while 84.1 per cent of employees worked and without pay 11.7 per cent of the workers reported to have been absent from work due to COVID-19 related factors. On average, workers in the County lost 12.1 hours per week due to COVID-19. Informal sector was the most hit since majority of County residents (73.6 %) were working in the sector.

During the pandemic, about 5.9 per cent of workers in the county were casual workers while 25.5 were regular workers (full time), other 5.2 per cent employees were working as part time. About 2.8 per cent of workers indicated to have benefited from government tax exemptions which indicates about 97 per cent did not benefit from National government tax relief for low-income-earning persons, a reduction in the top Pay-As-You-Earn (PAYE) rate, and other changes such as cash transfers, credit relief, lower VAT, and a corporate tax cut.

Figure 12.1: Effects of COVID-19, 2020

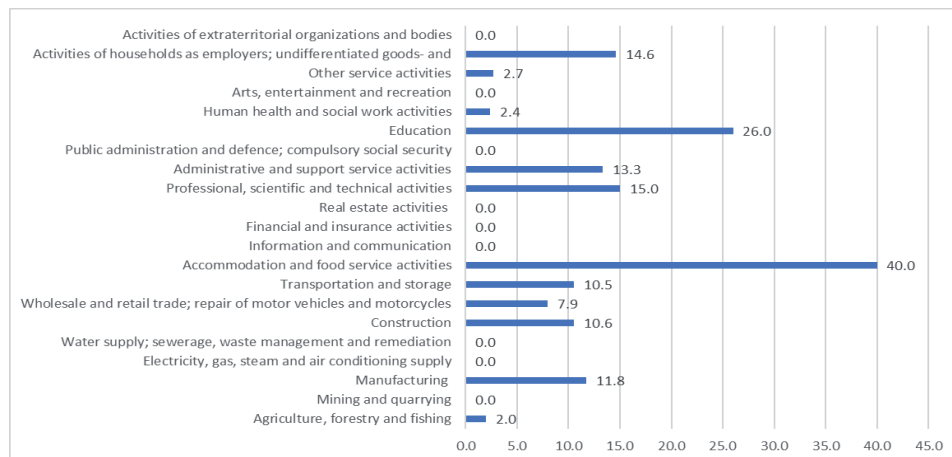


Source: May 2020 KNBS COVID-19 Survey

Bungoma being a transit corridor and bearing its proximity to Uganda had many sectors of the economy disrupted by COVID-19. Market places were closed with several workers losing sources of income. Further, the hotel industry in the county laid off some staff due to low profits.

According to the May 2020 KNBS COVID-19 Survey, the accommodation and food service activities sector reported the highest level of loss of hours worked per week (40 hours) followed by education which lost 26 hours (figure 66). Professional, scientific and technical activities and activities of households as employers; and workers under undifferentiated goods lost a total of 15 hours and 14.6 hours per week, respectively. Manufacturing and construction recorded on average loss of 11.8 hours and 10.6 hours per week, respectively. The loss of working hours in service sectors which contributes to 50.0 per cent of county GCP implies the county economy was negatively affected.

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



Source: May 2020 KNBS COVID-19 Survey

Bungoma county has one of the country's largest sugar factories, as well as numerous small-holder sugar mills. Workers in these industries were forced to stay at home due to social distance restrictions and curfew. About 10.5 per cent of employees did not attend to work and 84.1 per cent of the employees worked without pay (May 2020 KNBS COVID-19 Survey). Following the containment measures put in place by both national and county governments, some other businesses such as bars, hotels, market centres had totally closed, leading to reduced business activities. Workers in the transport sector were also rendered jobless due to restrictions of moving both within the county; and in and out of large cities (Nairobi and Mombasa counties) which recorded highest number of COVID-19 cases. Overall, about 55 per cent of the workers reported decrease in income due to the COVID-19 and only 3 per cent of people reported to have experienced increased income. The utilities sectors such as water, sewerage, waste management; electricity and information technology sectors indicated no loss in hours worked.

12.3 Opportunities with COVID-19 in Labour Participation

Opportunity for Lake region economic lie in industrialization (manufacturing of goods), human capital (expertise across all sectors) and market opportunities. Opportunities for investment by private sectors are the large chunk of lands and water from the lake for irrigation purposes. The county is considering value addition to fish (tinned) to explore the economic block market as well as rice production and cotton production. Additionally, the county is making attempts to harness value addition opportunities in dairy farming.

While the “future of work” was well underway before the pandemic, COVID-19 has clearly hastened its arrival as the economic effect of the global pandemic (COVID-19) provides an opportunity for the acceleration of the digitalisation processes in the work environment. The county government need to immediately 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

12.4 Emerging issues

The private sector schools, teachers and other workers have lost their incomes an incidence which has resulted to emotional and psychological problems leading to gender-based violence.

The County is not well prepared in terms of response to health-related risks such as the current COVID-19. There are emerging talents among the youths which can tapped to benefit the county especially this time of COVID -19 such as making of ICU bed, masks and PPEs. There is increase in unemployment rate.

12.5 Recommendations

- i. Prioritize investment to modernize agriculture into a viable commercial undertaking whilst also increasing the quality and supply of human resources across all sectors.
- ii. The County in collaboration with the national government to formulate measures aimed at encouraging employment creation including expanding the national internship programs and promoting Information Technology (IT) enabled jobs.
- iii. The Kenya Private Sector Alliance (KEPSA) through its social arm - KEPSA Foundation, has various opportunities, which the County can leverage on to achieve its social and economic objectives. For example, the KIJANI movement can be adopted by the County to create green jobs for the unemployed youth.
- iv. Improving market opportunities by selecting the right value chains for farmers. This will encourage farmers to shift production from subsistence to market-oriented output.
- v. Tapping into national government programs like Ajira Digital Training Program (ADTP) to enable the young people access work opportunities available online and provide them with the right tools, awareness, infrastructure, skills, training, mentorship and access to dignified work that can earn them a decent income.
 - vi. The county will support to Micro, Small and Medium scale Enterprises (MSMEs) through creation of enabling business environment, provision of market information and infrastructure, improving transport systems and provision of affordable energy. In addition, build capacity in areas related to marketing, operations, finance, and human resource development to enhance the chances of survival of SMEs.
- vii. Invest in ICT and online job opportunities by increasing internet access among households from the current 7.2 per cent. Access to ICT will contribute to the County's economic resilience by reducing transaction costs, increasing business efficiency, improving education standards and ensuring accountability and transparency in usage of public funds and access to services. The County in collaboration with business community will establish innovation hubs with internet connectivity for use by locals to interface and do business with others across the world, hence increasing their income.

13. Conclusion and key recommendations

13.1 Conclusion

13.1.1 Fiscal policy

The County's main sources of revenue comprise of the transfers from the National Government, Conditional Grants, and its own source revenue (OSR). The county's total revenues have grown by 80 per cent from Ksh 6.72 billion in FY 2013/14 to Ksh 12.09 billion in FY 2019/20, representing an average annual growth rate of 13.3 per cent. The significant growth in total revenues is similarly mirrored in the growth of equitable share from the National government, which contributes the largest share of the county's revenues. The share of OSR increased from 2.72 per cent in FY 2014 to 7.44 per cent in FY 2019/20. This accentuates the potential to increase county's total revenues through generation of more OSR as well as conditional grants from development partners. In FY 2020/21, the county received Ksh 430.76 million and Ksh 663.59 million from National Government and Development partners respectively.

13.1.2 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 COVI-19 pandemic period, the County also suffered from desert locusts, floods and livestock diseases. The County's agricultural productivity is also affected by: - variable and extreme weather events; low agro-processing and value addition opportunities; low access to quality and affordable inputs; low crops, livestock, and livestock products marketing opportunities; 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. 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; strengthen the County's institutional capacity in disaster surveillance and management; enhance farmers access to critical agricultural services and build their technical capacity to act on information obtained; and strengthen agricultural cooperatives.

13.1.3 Water sanitation and hygiene

Access to piped water remains low in the county and most households relies on springs as the source for drinking water, which may dry up in drought season, and destruction of water catchment areas. Similarly, access to piped sewer remains low in the county thus

denying the much-needed revenues to the counties by connecting households to piped water and sewer. To build resilience the county will; upscale the abstraction of water from rivers, spring protections, harvesting of rainwater from roof and other catchments to help achieve increase to water access to households, institutions, and public places. Similarly, the county will promote the use of safe and improved toilets in schools, health care facilities, workplaces, and public places. Connect households to sewer lines to help increase access to improved sanitation as well as increase revenue collection

13.1.4 Manufacturing, Trade and MSMEs

Bungoma County's Manufacturing, Trade and MSMEs momentum 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 this sector, it is important to strengthen trade and also 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. In sustaining growth in the Manufacturing, Trade and MSMEs sector, the County will: Establish 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, will be used to identify and support the most vulnerable businesses and entrepreneurs affected by COVID-19; Revive Nzoia sugar company and Malakisi cotton ginnery; Collaborate with the National government to ensure security is enhanced to reduce on crime and create a peaceful business environment.

13.1.5 Infrastructure, housing and urban development

The main means of transport used in the County is walking followed by bicycle. The paved County Road network covers 37.35 KMs, while the paved National roads covers 208.8KMs. Out of the total paved road network of 246.15KMs, 24.4 per cent is in good condition, 67.53 per cent in fair condition and 8.07 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, lack of knowledge and skills on internet are the leading reasons that the people of in the County do not have internet connection. The housing tenure is predominantly owner occupied. The county has challenges in quality of the housing stock. Approximately 75.9 per cent of houses are constructed using rudimentary materials. In responding to the prevailing challenges, the county will Adopt climate smart road engineering designs to safeguard road and bridge infrastructure from floods and to harvest storm water for irrigation and productive use; Bridge the digital divide and provide ICT access to the "ICT have nots", invest in programmes that will enable households acquire ICT assets such as smart phones and laptops; Avail appropriate building technology for use by the public in house construction and improvement in every subcounty, that responds to local cultural and environmental circumstances.

13.1.6 Tourism

The key tourism attraction sites in the County include Physical attractions, wildlife, Cultural and heritage tourism, Agro-tourism, traditional medicine, and sports tourism. The County has several classified hotels and restaurants that makes up the hospitality industry.

However, demand for modern hotels and restaurants surpass the supply, hence the need for Public-Private-Partnership initiatives to fill the gaps in the sector. Considerable opportunities for expansion exist in safari, conference, business, and diaspora tourism. Furthermore, the County has great potential to expand products that are more recently in greater demand, such as nature/adventure tourism, cultural heritage tourism, and travel for wellness, health, and retirement purposes.

13.1.7 Health

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

13.1.8 Education and training

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.

13.1.9 Social protection

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.

13.1.10 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.

13.2 Key Recommendations

13.2.1 Fiscal policy

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

13.2.2 Agriculture, Livestock and Fisheries

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; link farmers to diverse product markets; promote agribusiness among women and youth in the County; Promote adoption of modern technologies, conservation agriculture techniques and sustainable land management; 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; provision of storage and cooling facilities; and strengthen agricultural cooperatives.

13.2.3 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.

13.2.4 Manufacturing, Trade and MSMEs

In sustaining growth in the Manufacturing, Trade and MSMEs sector, the County will: Partner with institutions in the innovation ecosystem to ensure all incubations by manufacturing enterprises get the requisite support system required for them to flourish; Ensure establishments in manufacturing adopt to the new pandemic guidelines including rearranging floor plans to allow for social distancing; 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; COVID-19 has increased demand for locally produced goods in the County, and especially Personal Protective Equipment (PPEs), sanitisers, hospital beds and ventilators. It is an opportunity to spur innovation and promote manufacturing and industry development and generation of jobs for the youth; and Facilitate development of a Special Economic Zones (SEZ) and completion of Small and Medium Enterprises (SME) Park as per Kenya Vision 2030 aspirations.

13.2.5 Infrastructure, urban development and housing

The main means of transport used in the County is PSV matatus followed by walking. The paved County Road network covers 117 KMs, while the paved National roads covers 350 KMs. Out of the total paved road network of 57 per cent is in good condition, 45 per cent is in fair condition and 5 per cent is in poor condition. The status of ICT access and use in the county was low, especially among households. The perception that the individuals did not need to use the internet, lack of internet were the leading reasons that the people in the County did not have internet connection. The housing tenure is predominantly owner occupied. The County has challenges in quality of the housing stock. In responding to the challenges, the county to identify County significant infrastructure projects for implementation under a stimulus programme to support economic recovery; Collaborate with IT personnel in universities to support the development of ICT competence and skills among the public and bolster a digital economy and technology adoption; Develop a policy to promote home ownership to address the problem of rent distress during times of emergency.

13.2.6 Tourism

There is need to build human capital along the tourism value chains such as private sector investment in tourism skills development with focus on hospitality management and provide support to communities around tourist sites to engage in income generating activities. The county also needs to improve management of the tourism sector and facilitate mechanisms for enhancing inter and intra sectoral linkages; facilitate a county tourist circuit. Additionally, the county will increase conservation of natural and cultural Heritage: Policy formulation and review; promote protection of wildlife species; develop capacity of the County government to protect, conserve and restore critical tourist products.

13.2.7 Health

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

The county to 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.

13.2.8 Education

The County with support from stakeholders to continue to invest in early childhood development through infrastructural development ; 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, also provide psychosocial support to teachers and learners.

13.2.9 Social protection

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 Bungoma County, and to map existing initiatives to improve it.

13.2.10 Labour Participation

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. Furthermore, the county government to 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 facilitate their transition to the formal economy in the longer term.

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