

# **Socio-Economic Status of Nandi 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**



The KENYA INSTITUTE for PUBLIC  
POLICY RESEARCH and ANALYSIS

*Thinking Policy Together*



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

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## Abbreviations and Acronyms

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

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### **Fiscal policy**

Nandi County total revenue has significantly grown over the years as the government focuses on enhanced services and amenities for the citizens. Total revenue increased from Ksh 4.07 billion in 2013/14 to Ksh 6.65 billion in 2020/21, with an average growth rate of 9 per cent. The amount realized in 2020/21 was 87.3 per cent of the annual budget allocation of Ksh 7.61 billion. The performance was an improvement from the 72.2 per cent attained in 2019/20. This was supported by the 100 per cent remittances of equitable shares and conditional grants from the National Government. Analysis of the sources of the county revenue show that equitable shares contributed the largest share of total revenue, averaging 80.45 per cent over the same period. During 2020/21, equitable share amounted to Ksh 10.41 billion, representing 100 per cent of the annual budget allocation. This accentuates the commitment of the National Government to support county operations. To support effectiveness of spending, the county needs to ensure that on-going projects are completed before launching new projects and clear any pending bills and arrears owed to suppliers. There is also need to improve budget execution and absorption of development budget by harmonizing project implementation cycles to budgeting and fast-track exchequer releases; reduce expenditure on compensation of employees within the PFM requirement since ballooning compensation of employees potentially affects execution of key development programmes especially if not brought to sustainable levels; and monitor and promptly pay pending bills as they limit execution of planned activities in subsequent budgets.

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

Crop and livestock production activities are the largest contributors to economic activity in Nandi County. Key agricultural value chain commodities in the county include maize, beans, bananas, kales, onions, sweet potatoes, cattle, sheep, goats, poultry, and bee keeping (apiculture). Among the socio-economic effects on the COVID-19 pandemic on the agri-food sector in the county included negative effects on hours worked in agriculture-related occupations. An additional effect was a slow down on trade and marketing activities due to 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;

land fragmentation, unsustainable natural resources management practices; low adaptive capacity of farmers to climate change; low agro-processing and value addition opportunities; low access to quality and affordable inputs; low marketing opportunities; low access to major off-farm services including extension, climate and market information, and credit services; pests and livestock diseases; and farm losses and post-harvest waste. To successfully build resilience and enhance growth of the agriculture sector, the county will explore partnerships to develop agro-processing and value addition capacities; link farmers to diverse product markets; strengthen the county's institutional capacity in disaster surveillance and management; promote adoption of modern technologies, conservation agriculture techniques and sustainable land management; enhance farmers access to critical agricultural inputs and services and build their technical capacity to act on information obtained; provide storage and cooling facilities; and strengthen agricultural cooperatives.

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

Clean water, proper sanitation and good hygiene are an essential component in protecting human health in times of outbreak of infectious diseases. Frequent and correct hand hygiene has been emphasized by the 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 faced challenges in revenue collections with COVID-19, which has resulted into reduced incomes among households and businesses, thus deferring collection of revenue from water services, and financial support to water service 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, National and County Governments could increase water supply in households, institutions, and public places by drilling boreholes in all the sub-counties. There is need to partner with private sector, donor agencies, local communities, and NGOs to help develop water infrastructure.

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

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

to markets for the produce. In sustaining growth in 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, 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 businesses and traders through affordable credit; waiver of some county taxes, cess, and other charges; require businesses to adopt to new pandemic guidelines requiring rearranging of floor plans to allow for social distancing; and create partnerships with other counties to enhance markets for the county's produce and sustainability. COVID-19 has increased demand for locally produced goods in the county, and especially Personal Protective Equipment (PPEs), sanitizers, hospital beds and ventilators. It is an opportunity to spur innovation and promote manufacturing and industry development and generate jobs for the youth, and prioritize completion of the industrial park being set up at Chemase in partnership with EPZA.

### **Infrastructure, Housing, and Urban Development**

The main means of transport used in the county is walking followed by motorbike. Majority of the paved road network in the county is in poor condition. The status of ICT access and use in the county is low, especially among households. The housing tenure is predominantly owner occupied, where the larger proportion of houses are constructed using rudimentary materials. In responding to the challenges, the county will identify county significant infrastructure projects for implementation under a stimulus package to support economic recovery from the effects of the pandemic; harness the power of technology and use innovative solutions to bridge the gender digital divide; and avail appropriate building technology for use by the public in house construction and improvement in every sub-county, which responds to local cultural and environmental circumstances.

### **Tourism**

Nandi County prides in its spectacular and distinguishing landscapes, cool highlands climate and lush green vegetation cover. It has 66 identified tourist sites scattered across the county, but to a large extent have not been fully developed to be able to attract visitors. The main tourism physical attractions include the Nandi Rock and the South Nandi Forest, which require huge investment in conservation and maintenance to turn it into a tourist attraction with huge benefits to the county. Nandi County is rich in cultural heritage, which needs to be developed, promoted, and preserved for social and economic gains. Infrastructure such as museums, art and cultural centres, multimedia media and recording studio need to be developed to aid the county in harnessing its cultural heritage.

## **Health**

Nandi County has 3 hospitals, 45 dispensaries and 9 health care centres. The Health Sector department has 7 consultants (medical specialists), 22 medical officers, 4 Dentists, 490 nursing officers, 116 public health officers, and 10 pharmacists. The county has a doctor to population ratio of 1:94,000 population against a target of 1:230. The county has prepared two major isolation centres within sub-counties, in Nandi Hills Sub-County Hospital and Mosoriot Sub-County Hospital. Under the health sector, there is need for more awareness on immunization so that mothers can ensure their children get immunized. The county will implement a comprehensive human resource health management system, including undertaking training needs assessments and information system to ensure skilled and motivated health care workers, equitably deployed across all sub-counties. This is in addition to paying salaries on time to avoid cases of strikes and low staff morale. There is need to recruit additional of public health officers and community health workers to strengthen preventive and public health systems. The county should strengthen preventative and public health services through malaria control; expand programmes on immunization; integrate management of childhood illness; and control and prevent environmentally communicable diseases.

## **Education and training**

Nandi County has a total of 2,462 pre-primary centres with 79 per cent of them being publicly owned. The county has 832 primary schools of which 78 per cent are publicly owned. Infrastructure is in place to support water and sanitation efforts in learning institutions by the county. Nandi County has 19 colleges and there are plans to establish Koitalel University College. There is one private university in the county, named: University of Eastern Africa, Baraton. Other university colleges operating within the county are Kisii University and Masinde Muliro University of Science and Technology. Nandi County has 15 registered polytechnics/Vocational Training Centres offering Technical Vocational Education and Training (TVET). Amid the COVID-19 pandemic, the county reopened two major TVETs, namely Cheptarit Vocational Training Centre and Emsos Technical Training Institute to facilitate mass production of facemasks by PWDs. The county with support from stakeholders should continue to invest in early childhood development through infrastructural development to allow for adequate social distancing when schools reopen; deployment of ECDE teachers and provision of sanitation facilities. The county should provide financial or in-kind support such as school feeding, to help families overcome the increased costs of attending school, and also provide psychosocial support to teachers and learners.

## **Social protection**

Nandi County has a high overall poverty rate of 69 per cent. Food poverty is estimated at 36 per cent against a national average of 36.1 per cent, with severity

estimate of 32 per cent in terms of multidimensional poverty. These estimates indicate that there are still cases of extreme poverty in the county and that the general population is poor. Despite government efforts to implement feeding programmes in the county, the proportion of stunted children was 29.9 per cent. Of the total population, 1.8 per cent comprises of people living with various disabilities and 3.4 per cent are elderly persons aged 65 years and above, of which 50.5 per cent are females (KNBS Census, 2019). 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. There is need to undertake research to get a better understanding of the actual situation of disability and chronic illness in Nandi County, and to map existing initiatives to improve it.

### **Labour Participation**

As the economic base for the county is agriculture, tea farmers and workers in the tea sector were adversely affected because of fluctuations in tea prices in the global market, with some tea farm workers losing their jobs. The introduction of social distancing in matatus affected the transport sector, which resulted into less profit while introduction of lockdown in Nairobi and Mombasa counties led to loss of jobs in the industry. Related to this, 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. The impact of the pandemic was also felt on the services sectors as it affected workers in both private and public sector. Several people working in restaurants and bars were rendered jobless due to closure as ordered by the government. The county needs to enhance investments and mechanisms for upskilling and reskilling, deepening technical skills and 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, including non-contributory and contributory social security schemes and facilitating their transition to the formal economy in the longer term.





## I. Introduction and Structure of Nandi County Economy

### 1.1 Introduction

Nandi County is one of the counties in the North Rift Economic Bloc (NOREB). The county occupies a land area of 2,884.4 km<sup>2</sup>. The county has a population of 885,711 of which 49.8 per cent are male and 50.1 per cent female (KNBS, 2019) as shown in Table 1. Of the population 414,260 (1.8%) are persons with disabilities. The youth constituted 36.0 per cent of the population of whom 51.0 per cent were female. The county has a population density of 311 per km<sup>2</sup>. About 93.3 per cent of the population lives in rural areas of which 50.2 per cent are female. The elderly population (over 65-year old) make up 3.4 per cent of the total population of whom 63.0 per cent were female. The population in school going age group (4-22 years) was 47.8 per cent in 2019. As of 24<sup>th</sup> August 2020, the county had recorded fifty (50) cases of COVID-19 patients (Ministry of Health, 2020)

In 2015/2016, the overall poverty rate in Nandi County was 36.0 per cent against the national poverty rate of 36.1 per cent. In addition, 32.2 per cent of the population were living in food poverty and 69.1 per cent were living in multidimensional poverty, which means being deprived in several dimensions including health care, nutrition, and adequate food, drinking water, sanitation and hygiene, education, knowledge of health and nutrition, housing and standard of living, and access to information. According to KDHS 2014, 29.9 per cent of the children were stunted compared to the average national level at 26.0 per cent.

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

Indicator	County	National
Estimated county population (KNBS, 2019)	885,711	1.9% of total population
Males	441,259	49.8%
Females	444,430	50.2%
Intersex	22	0.003%
Estimated population density (km <sup>2</sup> )	311	82
Persons with disability	1.8%	2.2
Population living in rural areas (%)	93.3%	68.8%

Children (0-14 years) ()	40.8	41.1%
	56.5	
School going age (4-22 years) (%)	47.8 per cent	68.7%
Youth 15-34 years (%)	36.0 per cent	36.1%
Labour force (15-64 years) (%)	56.5 per cent	55.0%
Elderly population (over 65-year old)	3.4 per cent	3.9%
Number of COVID-19 cases (as of 11 <sup>th</sup> September 2020) (Ministry of Health); National cases were 35,232 people	58	0.17% of the national cases
Poverty (2015/2016) (%)	36.0%	36.1%
Food poverty (2015/2016) (%)	32.2%	31.9%
Multidimensional poverty (2015/2016) (%)	69.1%	56.1%
Stunted children (KDHS 2014)	29.9%	26.0%
Gross County Product (Ksh million) 2017	123,863	1.6% share to total GDP (2017)
Average growth of nominal GCP/GDP (2013-2020) (%)	12.5%	104.8%

Source: KNBS (2019)

The productive population of the county represents the largest share of the county population as shown in Figure 1. This is the 15-64 age group, which currently has 501,522 individuals which is 57 per cent of the total county population. This number is expected to rise in future. There is need to create more employment opportunities for women and youth in this category. Since Nandi County largely relies on agricultural activities to make a living, there is need to equip youths with modern skills and by employing instructors for the youth polytechnics and other training institutes.

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 15-34 years comprising of 319,633 individuals. They are followed by persons aged 6-13 years who are the primary school children comprising of 195,463 of the county population. The under 0-3 age comprise of 83,532 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	41,911	41,621	83,532
Pre-primary school age (Under 4-5)	22,609	21,942	44,551
Primary school age (6 -13)	98,522	96,941	195,463
Secondary school age (14-17)	47,938	46,569	94,507
Youth population (15-34)	156,058	163,575	319,633
Female reproductive age (15-49)		221,419	221,419
Labour force (15-64)	249035	252487	252,487
Aged population 65+	16,699	19,249	35,948

Data Source: KNBS (2019)

### 1.2 Level of Socio-economic Deprivations

In 2015/2016, 18.6 per cent of the population had health insurance cover, 22.1 per cent lived in premises with water, 77.8 per cent lived in their own homes and 81.7 per cent had access to mobile telephone (Table 1.3) and majority of the households (97.7%) had access to toilet facility. As a result, multi-dimensional poverty is estimated at 69.1 per cent.

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

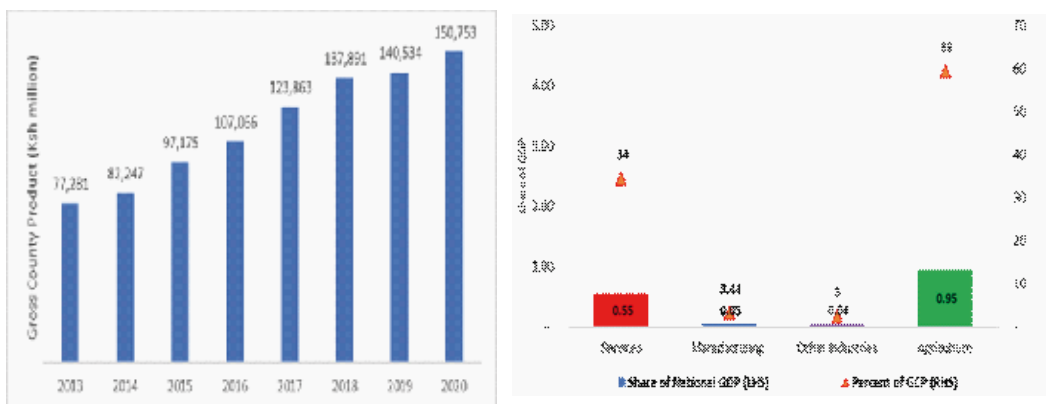
Indicator		Percentage Distribution
Health care	Population with health insurance cover	18.6
Drinking water (Time taken to fetch)	Zero (in premises)	22.1
	Less than 30 minutes	76.1
	30 minutes or longer	1.6
Sanitation and hygiene	Proportion of households with toilet facility	97.7
	Shared toilet	38.0
	Not shared	62
	Place to wash hands outside toilet facility	10.6
	No place to wash hands outside toilet facility	89.4

Education (population 3 years and above by school attendance status)	Ever attended	95.5
	Never attended	4.1
Knowledge of health and nutrition (children aged 0-59 months that participated in community nutrition programmes)	Participated in community nutrition programmes	13.2
	Did not participate in community nutrition programmes	86.1
Housing and standard of living (house ownership)	Owner occupier	77.8
	Pays rent/Lease	15.1
Access to information (population aged 3 years and above by ICT equipment and services used)	Television	66.4
	Radio	88.8
	Mobile phone	81.7
	Computer	12.9
	Internet	14.3

Source: KNBS (2016), KIHBS 2015/2016

### 1.3 Structure of the County Economy

Nandi County Gross County Product (GCP) accounted for 1.6 per cent of total Gross Domestic Product (GDP) as at 2017 (Figure 1.1). The GCP increased from Ksh 77,281 million in 2013 to Ksh 123,863 million in 2017, representing an average growth rate of 13.6 per cent per year. The agriculture sector contributes 59.0 per cent of GCP while services, manufacturing and other industries share constituted 34.0 per cent, 3.4 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 activities while manufacturing is mainly dominated by textile and apparel activities; leather and leather products; milk processing; brick and tile-making; canned food plant; animal feeds plant; cane sugar processing and honey refinery.

**Figure 1.1: Structure of the county economy, 2013-2017**

a) Gross County Product (2013-2020); b) Sector Contribution as share of GCP (2017)

Source: KNBS (2019)

#### 1.4 COVID-19 Caseload and Implications of Mobility Restrictions

As of March 2020, Nandi County had zero cases. However, by August 2020, the County had reported 9 COVID-19 cases with mobility stringency of 70.4. The caseload would rise to 1,613 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 (9) response mobility indicators. The nine metrics used to calculate the mobility stringency index are: 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 that is closer to 100 means high incidence or severity of mobility restrictions. The county mobility stringency index of 56 per cent implies the severity of the restrictions was moderate.

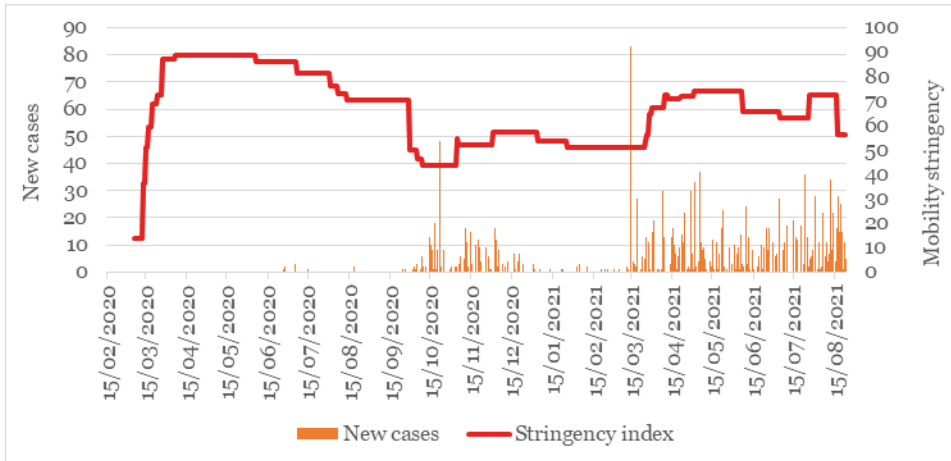
**Table 1.4: Total COVID-19 cases and mobility stringency—Nandi County**

Date	Total cases	Mobility stringency (0-100)
13 <sup>th</sup> March 2020	0	36.1
23 <sup>rd</sup> August 2020	9	70.4
23 <sup>rd</sup> August 2021	1,613	56.0

Source: Oxford University

New COVID-19 cases in Nandi County were highest between October 2020 and 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.

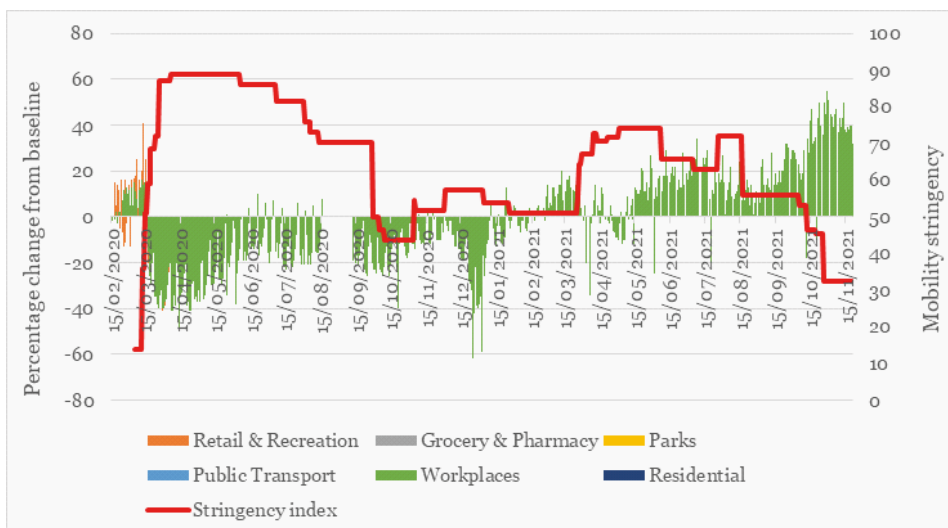
**Figure 1.2: Nandi County new COVID-19 cases and national mobility stringency**



Source: Oxford University

Demand for workspaces has been the most responsive to COVID-19 mobility restrictions in Nandi County. The sub-sector shrunk the most during time periods when mobility restrictions were tightest but rebounded sharply with easing of mobility restrictions.

**Figure 1.3: Effects of COVID-19 on Nandi County economic performance and national mobility stringency**



*Data Source: Oxford University*

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



## 2, Socio-Economic Effect of COVID-19

### 2.1 Fiscal Policy

#### County revenue analysis

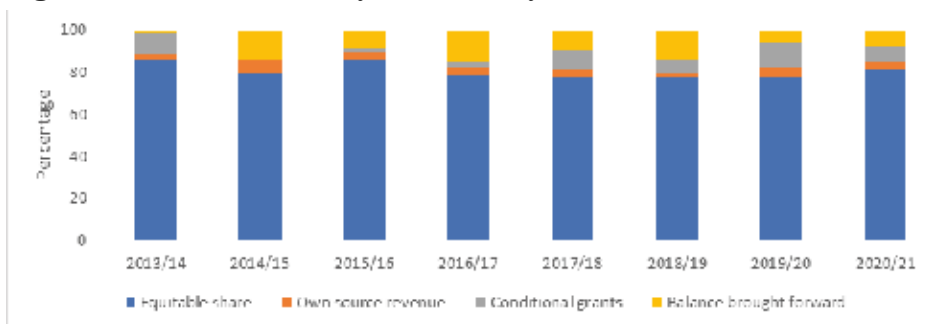
Availability of financial resources is critical in achieving the counties development plans and settling its recurrent expenditures. The county's main revenue sources comprise of transfers from the National Government, Conditional Grants, and its own source revenue (OSR).

#### Transfers from National Government

The county total revenue has significantly grown over the years as the Government focuses on enhanced services and amenities for the citizens. Total revenue increased from Ksh 4.07 billion in 2013/14 to Ksh 6.65 billion in 2020/21. The amount realized in 2020/21 was 87.3 per cent of the annual budget allocation of Ksh 7.61 billion. The performance was an improvement from the 72.2 per cent attained in 2019/20. This was supported by the 100 per cent disbursement of equitable shares and conditional grants from the National Government.

Analysis of the sources of county revenue shows that equitable shares contributed the largest share of total revenue, averaging 80.45 per cent over the same period (Figure 2.1). During 2020/21, equitable share amounted to Ksh 10.41 billion, representing 100 per cent of the annual budget allocation. This accentuates the commitment of the National Government to support county operations.

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



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

In terms of monthly cash transfers from the National Government, the county received increasing amounts from January to June over the years. In the year 2020, except for May and June, the county received higher allocations throughout the months compared to both 2019 and 2018. Further, cash transfers increased by 117.8 per cent between January and June 2020. The significant growth may be attributed to the need for the National Government to support the county activities as the country struggles with the COVID-19 pandemic.

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

	Jan	Feb	Mar	Apr	May	June	Oct	Nov	Dec
2021	2,927.30	3,424.33	-	-	-	-	1,747.72	-	-
2020	2,486.41	3,134.72	4,044.02	4,613.67	4,727.21	5,414.64	1,342.56	1,960.52	2,420.89
2019	2,406.06	2,859.29	3,377.94	3,861.19	4,797.14	5,722.93	4,797.14	1,392.17	1,957.75
2018	1,217.99	1,730.75	2,700.05	3,108.35	3,612.38	5,285.99	663.15	1,154.95	1,869.12
2017	-	-	3,463.30	3,873.77	4,319.04	5,139.97	357.27	-	-
2016	-	-	2,800.05	3,608.41	4,012.60	4,012.60	-	-	-

*Data source: Gazette Notice (Various issues)*

### Conditional grants

Conditional grants are also a major source of revenue for financing county operations and have been growing over the years. The county receives conditional grants from the National Government and development partners mainly from the World Bank and Danish International Development Agency (DANIDA), European Union (EU) and Sweden. During 2020/21, the County received Ksh 206.37 million and Ksh 340.67 million from the National Government and development partners, respectively. The contribution of conditional grants to total revenue has been robust (Figure 2.1). On average, the grants contributed 6.37 per cent of the county total revenue between 2013/14 and 2020/21. In nominal terms, conditional grants have been on an upward trajectory and grew by 12.48 per cent from Ksh 408.95 million in 2013/14 to Ksh 547.05 billion in the 2020/21. Notably, the county received Ksh 795.94 million in 2019/20 as conditional grants, an all-time high. The performance signifies the potential the county has in accessing finances in form of grants. As such, continued good relations with development partners and adherence to the conditions of the grants are key to access more funding in form of grants.

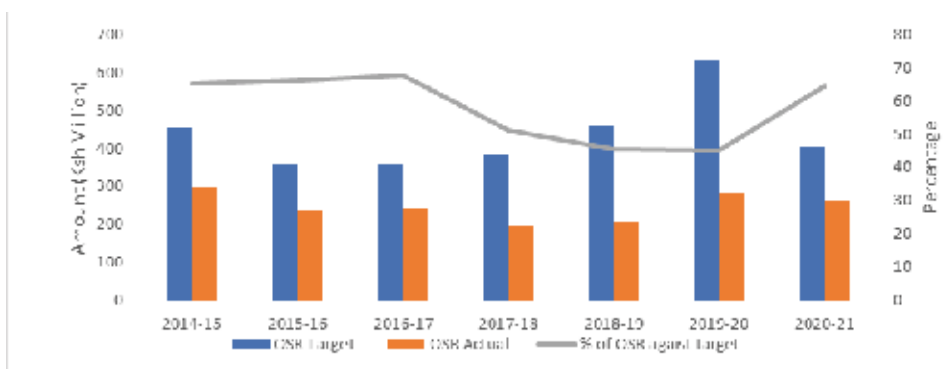
### Own Source Revenue

The share of Own Source Revenue (OSR) to total revenue has been relatively constant over the years. On average, OSR contributed 3.84 per cent to total revenue between 2013/14 and 2020/21 (Figure 2.1). There is need, therefore, for

the county to strengthen its OSR collection framework to enhance its contribution to total revenue.

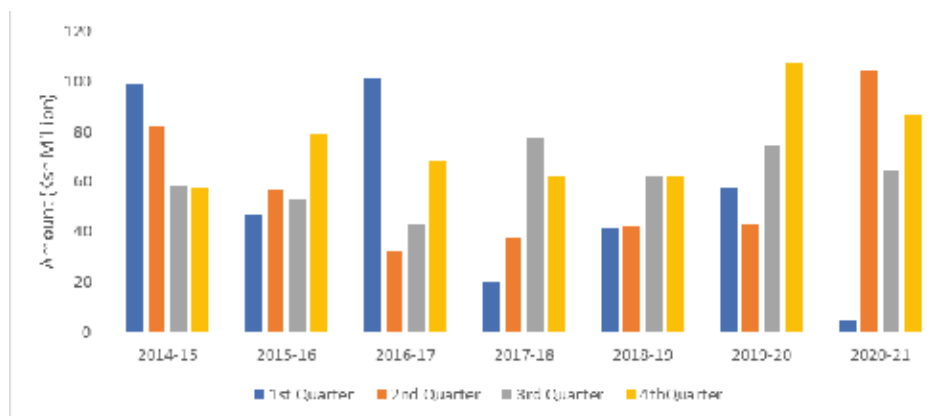
In terms of annual OSR performance, the actual county OSR performance has over the years been below its target. The annual OSR performance has been fluctuating, registering growth in 2016/17, 2018/19 and 2019/20 (Figure 2.2). In 2019/20, the county generated Ksh 283.19 million as OSR, representing 45.04 per cent of the targeted collections. With the adverse effects of COVID-19 pandemic, it was difficult for the county not only to attain its targets but also to match the previous year’s performance. During 2020/21, the county experienced a decrease of 8.5 per cent to generate Ksh 261.04 million as OSR. It would be important for the county to develop and implement measures geared towards generating more OSR to improve the county’s total revenues.

**Figure 2.2: Annual Own Source Revenue targets and actual collections**



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

The county collected most of its revenue during the third and fourth quarters beginning 2017/18 (Figure 2.3). This could be attributed to the collections of single business permits that are due on 31<sup>st</sup> March of every year. During 2019/20 and 2020/21, quarterly OSR collections remained robust, save for the first quarter of 2020/21. The performance shows that the county remained resilient during the COVID-19 pandemic period as the country experienced low economic activities.

**Figure 2.3: Quarterly Own Source Revenue collection**

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

Analysis of the OSR streams shows that the county's top revenue streams are health and sanitation services, business permits, vehicle parking, FIF (maternity inpatient) and cess (Table 2.2). Collections from tea estates and land rates are also very significant in the county.

During the pandemic, the revenues streams were greatly affected. Funds collected from county health facilities declined during the pandemic period owing to fear by residents to visit hospitals. For instance, the county previously collected revenue amounting to Ksh 15 million per month; however, at the onset of the pandemic, the amount decreased to less than Ksh 4 million. In addition, prior to the pandemic, the county received 5 per cent of its revenue from liquor licenses. However, due to COVID-19 containment measures that required bars to remain closed, the collections declined as the county granted traders a fee waiver of 75 per cent on permits. In addition, economic activity declined within the county, resulting in reduced parking fees within municipalities.

**Table 2.2: County OSR streams in Ksh**

Revenue streams	2013/14	2014/15	2015/16	2016/17	2017/18	Total
Health and sanitation	15,578,106	46,521,862	28,200,145	43,514,539	62,399,589	196,214,241
Business permit	25,454,110	27,028,164	30,589,401	29,946,340	35,597,021	148,615,036
Vehicle parking	16,830,845	26,430,879	32,891,814	27,083,689	34,676,091	137,913,318
FIF (Maternity Inpatient)		16,270,455	47,727,500	39,402,500	30,200,000	133,600,455
Cess	4,464,242	12,648,843	5,810,815	70,482,227	3,142,735	96,548,862
Kiborgok Tea Farm	32,613,290	9,648,172	17,540,000	10,775,605	17,616,629	88,193,696
Land rates	4,775,703	12,429,790	28,322,213	30,908,818	9,277,187	8,571,3711
DANIDA-HSPS3		15,930,000	18,310,000	19,225,500	21,700,000	75,165,500

Market fees	8,571,689	10,764,267	8,843,155	10,648,414	11,430,273	50,257,798
Other fees	17,724,693	10,452,403	5,426,661	5,343,115	9,514,909	48,461,781
Agriculture		3,595,027	9,201,193	6,969,199	5,908,025	25,673,444
House and stall rents	4,787,477	3,940,370	3,906,900	2,862,813	6,948,935	22,446,495
Cattle dips/Veterinary		7,986,558	3,707,783	2,532,910	4,676,068	18,903,319
Plot rents		999,333	1,191,086	2,542,171	1,546,106	6,278,696
Liquor licensing					5,337,000	5,337,000
Trade fair		2,722,430	1,015,590			3,738,020
Slaughter fees		900,790	710,880	472,460	546,300	2,630,430
Sewerage and water		412,344	410,719	647,457	646,116	2,116,636
Auction fees	1,576,240					1,576,240
Total	132,376,395	208,681,687	243,805,855	303,357,757	261,162,984	1,149,384,678

Source of data: Nandi County Integrated Development Plan 2018-2022

## 2.2 Nandi County Expenditure Analysis

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

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

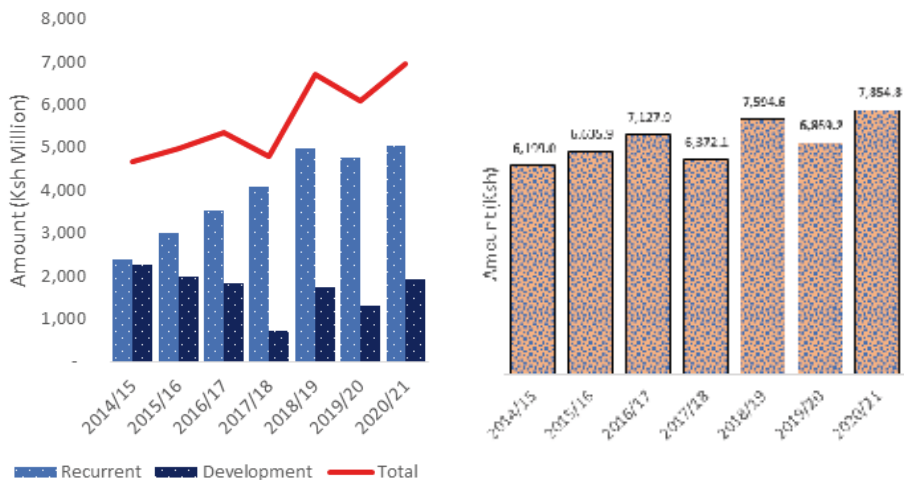
Despite their constrained fiscal autonomy (such as inability to borrow funds) and relatively small budgets, the county government has a key role to play in promoting growth as espoused in the Kenya Constitution. This is particularly the case with development expenditure, which is within the assigned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

<sup>1</sup> UN General Assembly (2014), p. 22, par. 94.

## Trends and profile of county government expenditures 2013-2021

County expenditure has over the years been rising as the county escalates its efforts in provision of services to its residents. Total county expenditure has grown significantly since 2013/14. With the implementation of the first full year county budget in 2013/14, actual expenditure in the county increased from Ksh 4,665.5 million to Ksh 6,957.1 million in 2020/21 (Figure 2.4). Cumulatively, the county has spent Ksh 41.9 billion between 2013/14 and 2020/21. This comprises a cumulative Ksh 29.6 billion and Ksh 12.3 billion on recurrent and development expenditure, representing 71.7 per cent and 29.3 per cent of the cumulative recurrent and development expenditure, respectively. This signals that development expenditure has performed relatively well, and more development expenditure is required to support deepening of capital spending in the county.

**Figure 2.4: Trends in actual expenditure**



*Data Source: Office of the Controller of Budget*

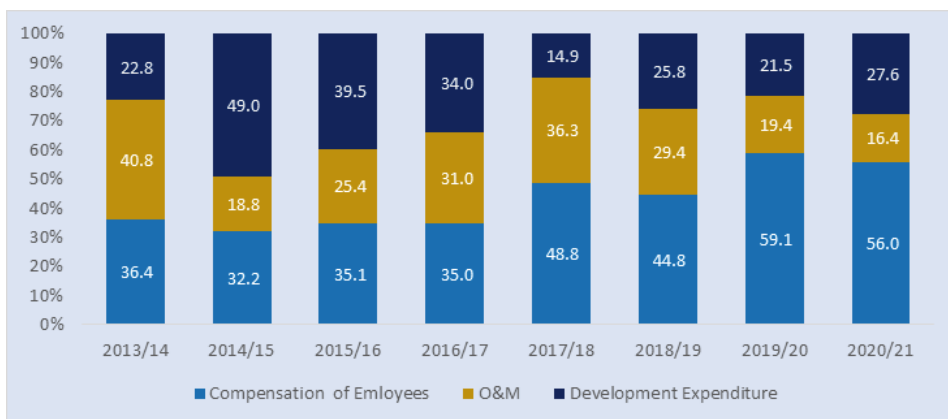
Consistent with the nominal growth in actual county expenditures, spending on a per capita basis has shown upward growth over the period. In 2013/14, per capita spending in the county was about Ksh 6,199 compared Ksh 7,854 in 2018/19.

## Utilization of public resources in the county

Analysis of Nandi County expenditures by economic classification and by departments (spending priorities) revealed interesting insights. It is evident that since inception of devolved governments Nandi County government prioritized narrowing the economic and social infrastructure gaps. Much of government development expenditure has been dominant in provision of health services, roads and public works, education and ECDE projects, and water and sanitation services.

Figure 2.5 shows that the share of development expenditure averaged 29.4 per cent between 2013/14 and 2020/21. Development expenditure constituted 14.9 per cent of the expenditure in 2017/18 and increased marginally to 25.8 per cent in 2018/19. In 2019/20 and 2020/21, development expenditures accounted for 21.5 per cent and 27.6 per cent of county expenditure, respectively. Between 2013/14 and 2020/21, the share of compensation of employees in total county spending averaged 43.4 per cent, indicating the sluggishness in capital spending in the county.

**Figure 2.5: County government expenditure by economic classification (% of total expenditure)**



*Data Source: Office of the Controller of Budget*

Reflecting on expenditures by functional classification (priority spending), the county spent 69.5 per cent of the total expenditure during the period under review on non-administrative departments such as health and sanitation, public works and roads, education, water and sanitation and agriculture. Spending on health and sanitation services accounted for the largest share of the budget at 30.6 per cent or slightly above one third of the budget for the last seven fiscal years. Public works, roads and transport accounted for 11.1 per cent of county spending, followed by agriculture, livestock and fisheries at 7.5 per cent while education, sports, youth and ICT and water, sanitation and natural resources accounted for 6.7 per cent and 5.3 per cent, respectively. Further, during the review period, coordination and administrative department accounted for a combined average of 30.5 per cent with finance and economic planning leading at 11.4 per cent, county assembly 11.0 per cent, office of the governor 7.1 per cent, while county administration and public service board accounting for 0.9 per cent.

**Table 2.3: County departmental spending**

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	Average	Average share of spending (%)
Health and Sanitation	1,067.1	1,309.1	1,256.9	1,423.8	2,002.6	2,325.9	2,725.7	1,730.2	30.6
Finance and Economic Planning	541.1	560.6	669.3	949.1	946.1	447.7	413.0	646.7	11.4
Public Works, Roads and Transport	791.1	839.0	823.3	202.1	713.3	468.2	551.6	626.9	11.1
County Assembly	377.6	542.9	668.6	581.6	723.6	682.0	776.8	621.9	11.0
Agriculture, Livestock and Fisheries	255.0	283.4	281.1	234.6	556.6	653.7	709.5	424.9	7.5
Office of the Governor	401.3	567.2	329.1	402.0	341.4	450.5	329.2	403.0	7.1
Education, Sport, Youth and ICT	299.4	218.5	419.2	625.4	466.6	258.0	354.6	377.4	6.7
Water, Sanitation and Natural Resources	422.9	383.6	542.1	40.5	338.1	154.3	226.5	301.2	5.3
Other Special Programmes	159.2	-	146.0	115.9	363.9	521.5	632.7	277.0	4.9
Trade, Industrialization and Tourism	195.2	90.9	92.8	86.4	148.1	67.7	116.9	114.0	2.0
Gender, Youth, Culture and Social Development	131.7	46.4	115.7	21.8	100.6	41.1	96.1	79.1	1.4
Admin and County Public Service Board	24.2	152.9	21.0	112.8	25.8	13.6	24.2	53.5	0.9
<b>TOTAL</b>	<b>4,665.8</b>	<b>4,994.6</b>	<b>5,364.9</b>	<b>4,796.1</b>	<b>6,726.7</b>	<b>6,084.1</b>	<b>6,957.0</b>	<b>5,655.6</b>	<b>100.0</b>

*Data Source: Office of the Controller of Budget*

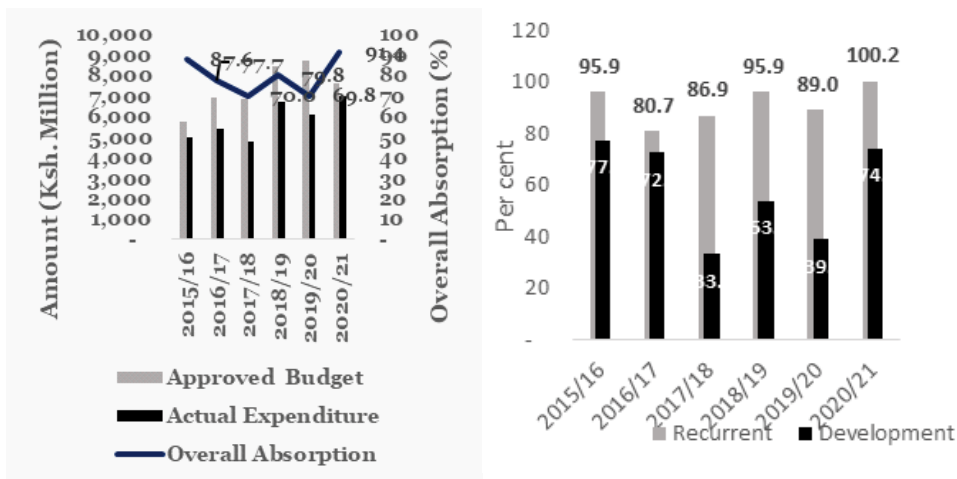
### 2.3 Effectiveness of County Spending

Budget execution in the county has remained low, particularly for development spending. Over the period 2015/16 to 2020/21 under spending on the development budget has been substantial (on average about 41.6% of the budget is not absorbed). This weakness in development budget execution makes it difficult for the county to achieve its aspirations contained in ADPs and the CIDP. While the recurrent expenditures have shown robust execution over the years, the average absorption rate has been 91.5 per cent, leaving about 8.5 per cent of unspent recurrent budget. Overall, budget execution has averaged 79.4 per cent, implying that over 20.6 per cent of the budget remains unspent. The sluggish execution of the development budget points to challenges in project appraisal, planning and sequencing of implementation. Continuity of this practice may result into over-estimation of budgets needed for completing projects. The slow development



budget execution is also a recipe for stalled projects, delayed procurement and increased pending bills at the county.

**Figure 2.6: Approved versus actual county spending and absorption rates for recurrent and development expenditures**

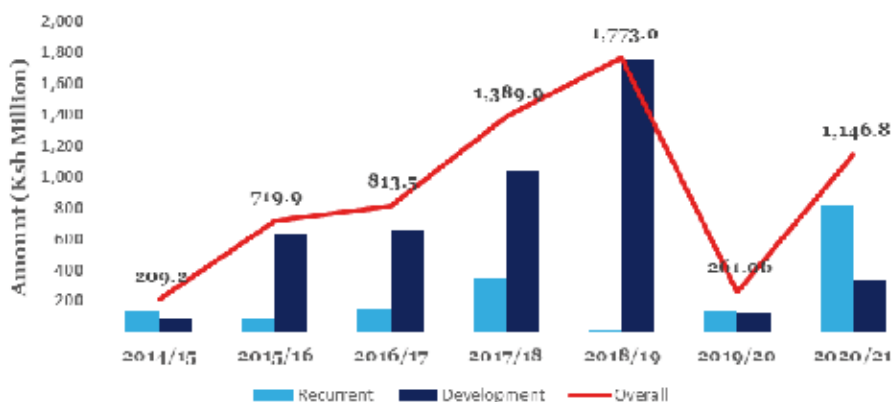


(a): Approved versus actual county spending (Ksh million); (b): Absorption rates for recurrent and development expenditures (%)

Data Source: Office of the Controller of Budget

### Pending bills

In 2014/15, the county reported Ksh 209.2 million in pending bills. This sharply increased to Ksh 1,389.9 million in 2017/18, with development spending related pending bills accounting for 99.3 per cent of this. In 2018/19, pending bills increased to Ksh 1,773.0 million before declining to Ksh 261.1 million in 2018/19. At the end of 2020/21, total pending bills amounted to Ksh 1,146.8 million. Generally, pending bills related to development have been greater than those related to recurrent expenditure on average accounting for 73.4 per cent of the pending bills portfolio. If pending bills for development 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 of its residents, the county government must now move quickly to tackle the problem of pending bills. Increasing and persistent pending bills is a threat to the survival of the private sector particularly primary firms that trade with the county government. These firms are critical for employment creation and driving economic activity within the county. These bills have not only affected their profitability and overall performance but have also become a threat to private sector in general and the families that depend on these firms through ripple effect. If not well monitored, these could grow and eat up on the county's already thin revenue sources.

## 2.4 Conclusions and Recommendations

- (i) Mobilize more finances from OSR to increase the available revenues for budgetary operations.
- (ii) Seek for more funding from development partners to cater for the critical development projects in the county.
- (iii) Ensure that the ongoing projects are completed before launching new projects and clear any pending bills and arrears owed to suppliers; ensure the ongoing infrastructure project are completed and suppliers paid within the specified timelines for optimal returns to investment and to spur private sector activity.
- (iv) Improve budget execution and absorption of development budget by harmonizing project implementation cycles to budgeting and fast-track exchequer releases.
- (v) Creation of an autonomous and dedicated ICT department
- (vi) Reduction of expenditure on compensation of employees, which take over 60 per cent of total expenditure; this potentially affects execution of key

- development programmes especially if not brought to sustainable levels.
- (vii) Monitoring and prompt payment of pending bills.

### 3. Agriculture

#### 3.1 Characteristics of the Sector

Agriculture accounts for the largest share of economic activity in Nandi County. More than a half of county economic activity is driven by the agriculture sector. In 2017, agriculture accounted for Ksh 71,213 million out of the total Ksh 119,691 million Gross County Product (GCP), amounting to 59.5 per cent of the county's GCP.

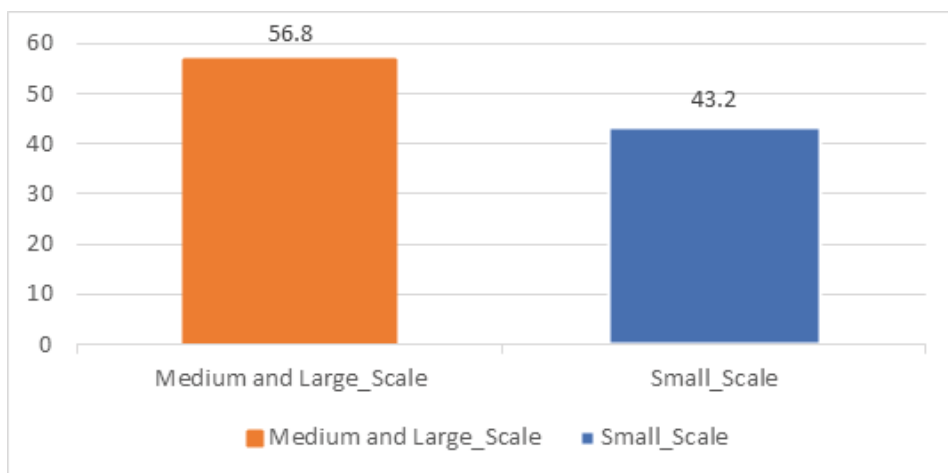
Over 70 per cent of households in Nandi County practice farming. About 71 per cent of the households produce crops, 56 per cent produce livestock, 0.41 per cent practice aquaculture and about 0.52 per cent are involved in fishing. About 1.9 per cent of the households practice irrigation farming.

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

County/ Sub County	Total House- holds	Farming House- holds	Crop Produc- tion	Live- stock Produc- tion	Aquacul- ture	Fishing	Irrigation
Kenya	12,143,913	6,354,211	5,555,974	4,729,288	29,325	109,640	369,679
Nandi	199,426	148,887	143,017	111,347	824	1,034	3,777
Chesumei	39,051	26,835	25,504	20,274	124	155	557
Nandi Central	34,400	23,951	22,841	17,343	125	168	516
Nandi East	29,253	16,777	16,093	11,896	91	108	738
Nandi North	35,297	30,073	29,010	23,728	171	264	1,080
Nandi South	37,094	31,054	29,829	23,740	231	219	420
Tinderet	24,331	20,197	19,740	14,366	82	120	466

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

On the scale of production, the FAO criterion on land size is used to identify smallholder farmers as those producers that “fall in the bottom 40 per cent of the cumulative distribution” (Khalil et al., 2017). Using this criterion, about 43 per cent of the farming households in Nandi 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: Estimated using the KNBS (2016), KIHBS 2015/2016. Figures for a period of the 12 months

Being a county belonging to the semi-arid upland agro-ecological 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 Nandi include maize, beans, bananas, kales, onions and sweet potatoes.

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

County/ Sub-County	Nandi	Chesumei	Nandi Central	Nandi East	Nandi North	Nandi South	Tinderet
Maize	134,408	23,735	20,895	14,873	28,171	27,508	19,226
Sorghum	14,875	1,785	1,667	1,330	3,704	2,250	4,139
Potatoes	18,045	3,790	3,236	3,121	3,452	3,165	1,281
Beans	79,216	11,413	11,961	9,441	15,124	18,653	12,624
Cassava	17,146	1,437	2,319	823	1,645	8,551	2,371
Sweet Potatoes	25,641	3,521	3,917	1,860	3,919	9,671	2,753
Wheat	1,766	261	217	293	319	249	427

Bananas	68,158	11,721	11,458	6,017	11,251	18,816	8,895
Cabbages	14,764	2,941	2,304	2,296	3,198	2,843	1,182
Tomatoes	10,084	1,297	1,233	1,482	1,697	1,958	2,417
Onions	32,316	4,512	4,997	4,761	5,265	8,390	4,391
Ground Nuts	1,343	149	186	86	268	492	162
Millet	12,788	1,722	1,517	1,030	3,461	1,965	3,093
Kales	58,494	11,747	10,053	7,044	9,326	12,941	7,383
Sugarcane	22,885	3,105	3,223	967	4,739	4,965	5,886

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

The key permanent crops among households in Nandi include tea and avocado.

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

County/Sub County	Tea	Coffee	Avocado	Citrus	Mango
Nandi	37,564	11,044	29,356	1,202	5,806
<b>Kenya</b>	<b>476,613</b>	<b>478,936</b>	<b>966,976</b>	<b>177,445</b>	<b>796,867</b>

Source: KNBS (2019), 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 Nandi's value of fruits production in 2019 amounted to Ksh 530.8 million. The area under fruit was 1,050 Ha with a production of 16,820 MT. The major fruits grown in order of value of importance are banana, avocado, pineapples, purple passion, yellow passion, mangoes and pawpaw.

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

Type of Fruit	Area in Ha	Production in Tons	Value in Shillings
Ground Nuts	2	2	144,000
Watermelons	3	38	1,575,000
Custard Apple	2	36	1,578,350
Macadamia Nuts	3	32	2,047,500
Thorn/Horn Melons	4	32	2,368,000
Sweet Melon	6	35	2,593,000
Tree Tomato	21	167	8,543,000

Pawpaw	14	261	13,564,750
Mango	22	425	18,062,500
Yellow Passion	9	273	20,406,000
Purple Passion	41	534	37,926,500
Pineapples	59	1,214	44,358,500
Avocado	238	2,719	117,282,000
Banana	626	11,052	260,342,500
<b>Total</b>	<b>1,050</b>	<b>16,820</b>	<b>530,791,600</b>

Source: Agriculture and Food Authority (2019)

In 2019, the value of vegetables production in the county amounted to Ksh 457 million. The area under vegetables was 1,393 Ha with a production of 31,503 MT. The major vegetables grown in order of value importance are: African nightshade, potato, French beans, tomato, cabbage and kales.

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

Type of Vegetables	Area in Ha	Production in Tons	Value in Shillings
Jute Mallow/Mrenda	1	4	48,000
Slenderleaf/Rattlepod/Mitoo	1	4	80,000
Vine Spinach/Nderema	6	27	1,080,000
Pumpkin Leaves	21	110	2,728,000
Cowpea	34	308	4,802,760
Garden Peas	15	103	5,400,950
Bell Pepper/Sweet Paper	15	130	5,571,500
Carrots	12	212	8,280,000
Leaf Amaranth	38	319	8,411,928
Spider Plant	42	291	12,394,571
Spinach	53	1,391	23,843,199
Pumpkin Fruit	23	228	23,847,000
African Nightshade	87	724	24,811,821
Potato	70	1,750	31,150,000
French Beans	65	1,279	38,155,000
Tomato	79	1,714	76,865,000
Cabbage	282	11,268	80,407,300
Kales	549	11,641	109,515,942
<b>Total</b>	<b>1,393</b>	<b>31,503</b>	<b>457,392,971</b>

Source: Agriculture and Food Authority (2019)

In 2019, the value of MAPs production in the county amounted to Ksh 43.5 million. The area under MAPSs was 145 Ha with a production of 1,571 MT. The major MAPs grown are bulb onion and spring onion/green shallots.

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

Medicinal and Aromatic Plants (MAPs)	Area in Ha	Production in Tons	Value in Shillings
African birds' eye [Abe] chillies	3	35	962,500
Spring Onion/Green Shallots	102	900	14,924,416
Bulb Onion	40	636	27,588,500
<b>Total</b>	<b>145</b>	<b>1,571</b>	<b>43,475,416</b>

Source: Agriculture and Food Authority (2019)

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

**Table 3.7: Distribution of households rearing livestock and fish by county and sub-county**

County/Sub-County	Kenya	Nandi	Chesumei	Nandi Central	Nandi East	Nandi North	Nandi South	Tinderet
Exotic cattle -Dairy	939,916	54,653	13,575	8,901	6,573	13,536	8,776	3,292
Exotic cattle -Beef	167,625	5,315	1,063	868	557	1,576	910	341
Indigenous cattle	2,260,439	43,268	4,170	5,918	3,999	7,845	11,798	9,538
Sheep	1,299,893	28,054	5,720	3,902	2,603	8,001	5,195	2,633
Goats	1,898,887	10,032	647	970	722	1,075	3,179	3,439
Camels	167,666	-	-	-	-	-	-	-
Donkeys	500,682	3,116	36	51	402	337	488	1,802
Pigs	110,383	201	29	57	12	68	30	5
Indigenous Chicken	3,337,700	78,490	13,598	11,421	7,514	17,300	17,656	11,001



Exotic Chicken Layers	194,517	6,867	1,752	1,265	799	1,352	1,209	490
Exotic Chicken Broilers	79,461	2,285	531	326	292	537	334	265
Beehives	201,406	3,937	586	664	460	908	703	616
Rabbits	124,122	1,248	265	255	97	163	294	174
Fishponds	22,019	777	118	118	85	156	223	77
Fish Cages	3,361	79	10	8	6	26	23	6

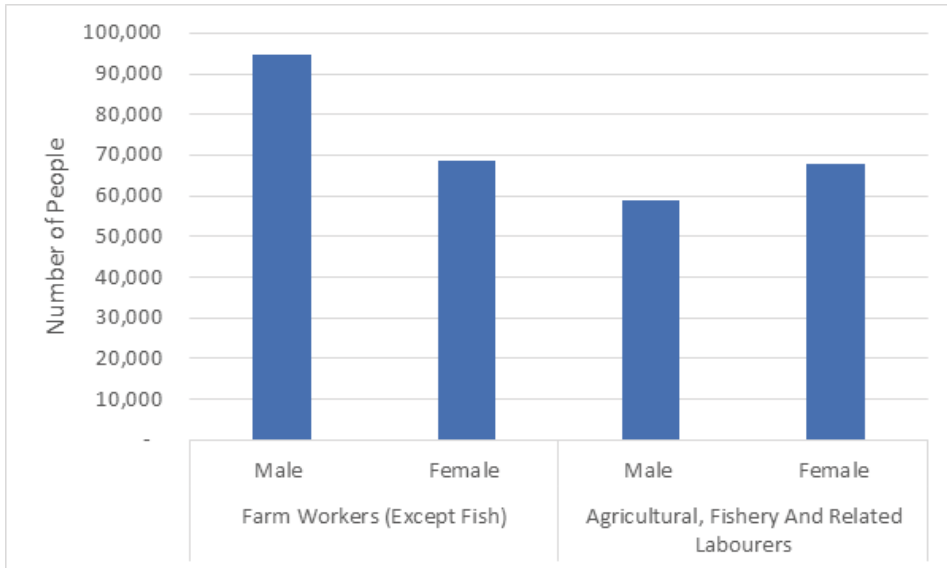
Source: KNBS (2019), 2019 Kenya Population and Housing Census

The above characterization of farming households highlights the priority value chain opportunities in maize, beans, bananas, kales, onions, sweet potatoes, cattle, sheep, goats, poultry, and bee keeping (apiculture). With majority of the households farming the identified products, the current Nandi transformation strategy in agriculture need to prioritize value chains in the identified areas to positively impact of households' livelihoods.

## Agri-Food Challenges in COVID-19

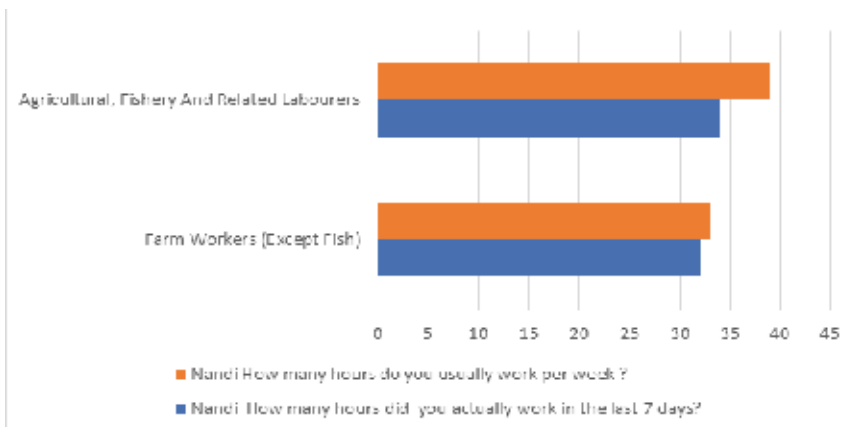
### i) Human capital/employment levels–by gender

Agricultural labour participation in Nandi indicates relative parity between females and males in the agricultural, fishery and related labourers' sub-category. This sub-category of workers includes farmhands and related labourers; forestry labourers; and fishery, hunting and trapping labourers. Male workers, however, dominate in the farm workers sub-category. The farm workers sub-category 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 labour 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 that workers in the two identified sub-sectors worked fewer hours in the reference period 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 5 hours between the usual and actual hours worked in a week.

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

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

### Wave 2

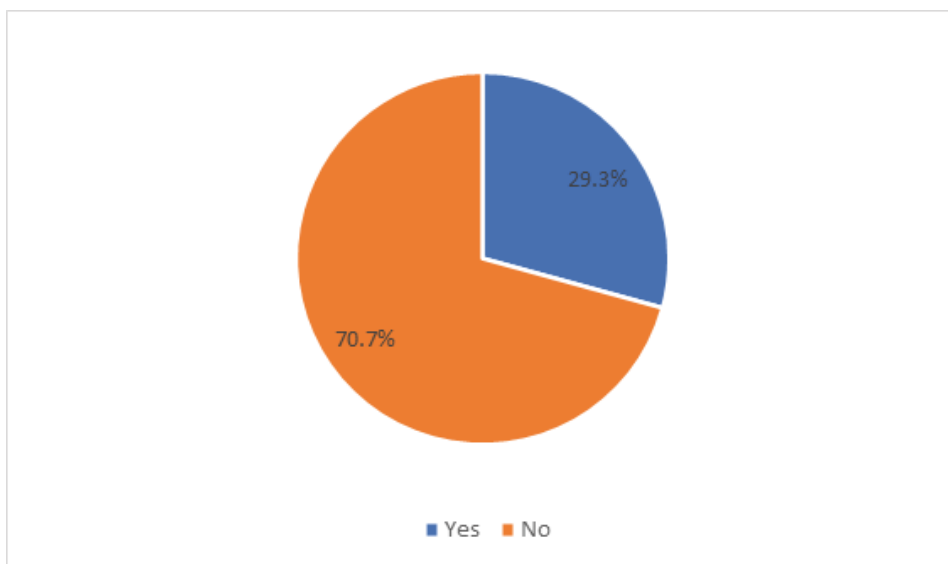
The identification of COVID-19 effects on labour force participation, especially among workers who fall under the agricultural, fishery and related labourers' sub-group is likely to have negative effects on output yields, thereby increasing yield gaps.

### ii) Market Operations

Successful transformation of smallholder agricultural production in Nandi 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 to market its commodities both in domestic, regional and international markets.

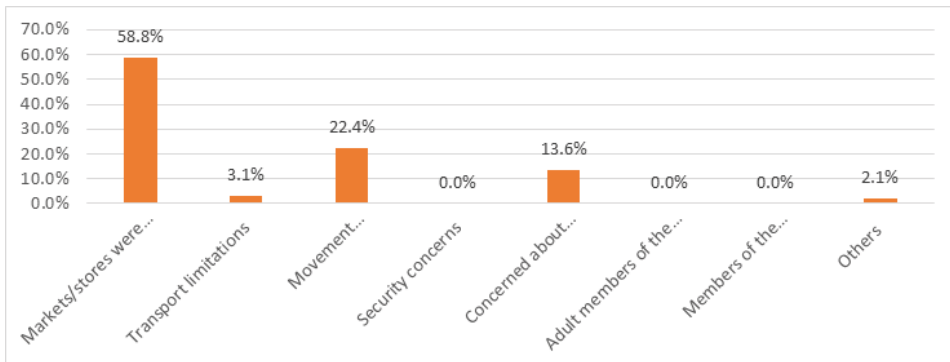
As a result of COVID-19, there has been a slow down on trade activities due to the restrictions on movements. From the KNBS survey conducted between 30th May and 6th June 2020, 29.3 per cent of the households in Nandi County indicated over the past 1 week there had been instances where the household or a member of the household could not access the markets/grocery stores to purchase food items

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



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

Majority of the households indicated the key reasons for not accessing the markets/grocery stores to purchase food items were closure of the markets/grocery stores (58.8%), movement restrictions (22.4%) and concerns about leaving the house due to outbreak (13.6%).

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

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

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

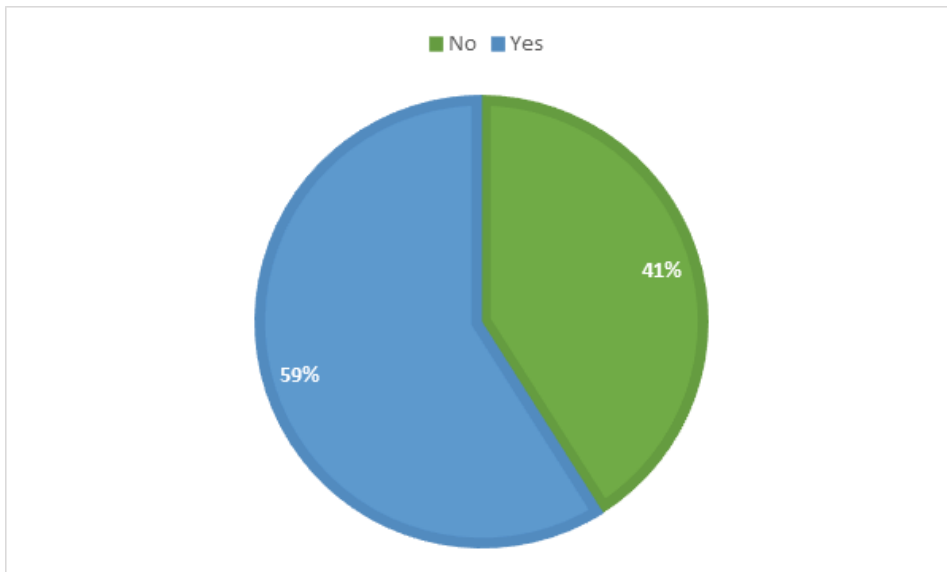
Restrictions affecting seamless movement of food commodities are likely to cause a hike in prices in non-production areas and fall in prices in production areas. 67 per cent of households in Nandi County indicated that over the past 2 weeks from the reference period, while 25 per cent indicated that 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, 59 per cent of the households indicated they faced a large rise in food prices in the past two weeks from the reference period.

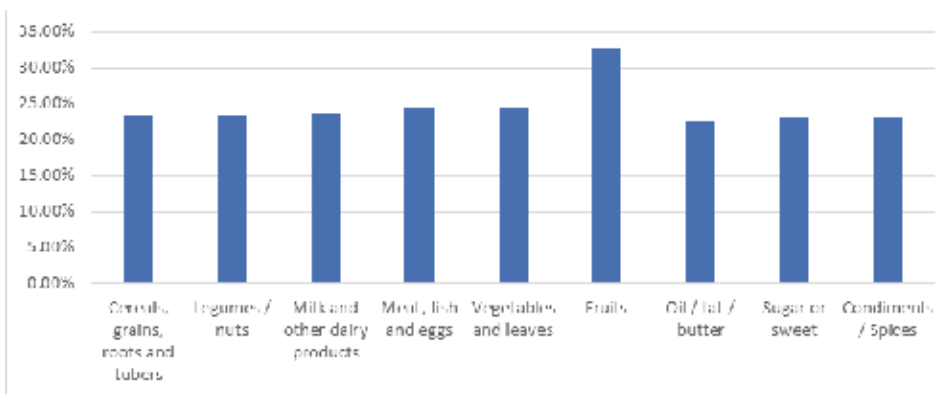
**Figure 3.7: Proportion of households facing large food price shocks**



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 figure below.

**Figure 3.8: Percent households reporting that the following food items are not readily available in their locality**

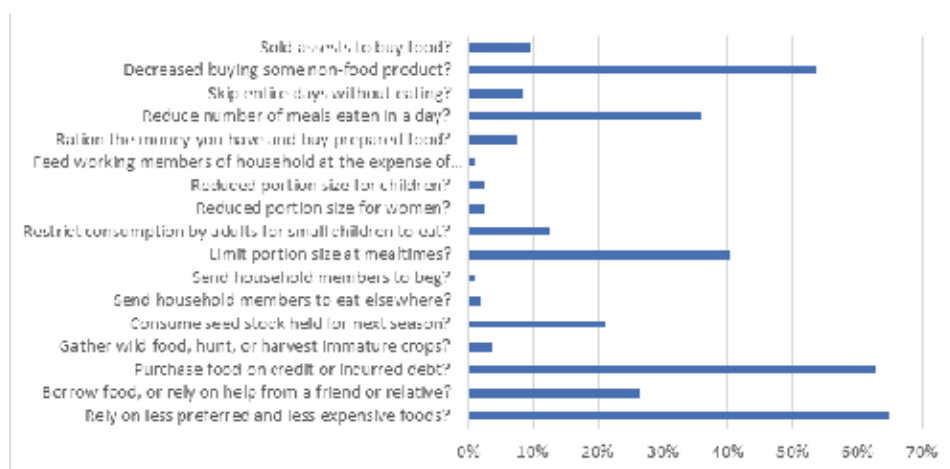


Source: KNBS Survey on Socio Economic Impact of COVID-19 on Households-Wave 2

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- 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 (65%), decreased buying some non-food products (53.6%), and purchase food on credit or incurred debt (62.96%).

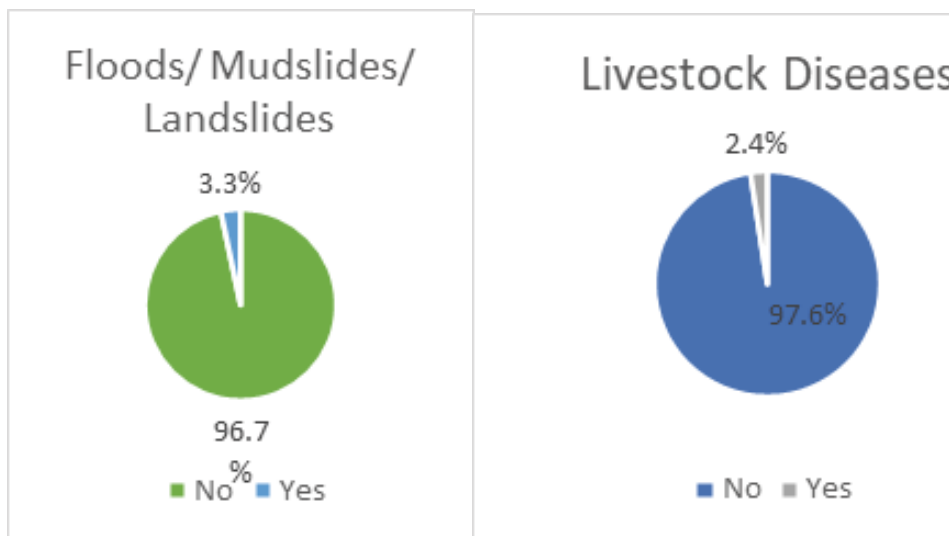
**Figure 3.9: per cent of households where the following strategies were adopted for at least one day**



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

Additional challenges faced by the county, albeit at low levels during the COVID-19 pandemic period include desert locusts (1.2%); floods/mudslides/landslides (3.3%); and livestock diseases (2.4%).

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



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

#### **Agri-food constraints faced in the county:**

Among the key constraints the county faces include:

- (i) Variable and extreme weather events, which have increased in frequency and intensity over the years adversely affecting crop and livestock production.
- (ii) Low agro-processing and value addition opportunities among small scale farmers.
- (iii) Dependence of rain-fed agriculture despite frequency in extreme climate conditions, such as, drought episodes.
- (iv) Slow uptake of digital platforms to market agricultural produce.
- (v) Unsustainable land and natural resources management practices.
- (vi) 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.
- (vii) Low adaptive capacity of farmers to climate change.
- (viii) Land fragmentation brought about by rampant sub-division of land. This has lead production activities becoming uneconomically viable.
- (ix) Low commercialization of farming where majority of farers practice farming for subsistence purposes.

- (x) Low livestock, crops and livestock products marketing opportunities necessary for improved incomes.
- (xi) Slow uptake of digital platforms to market agricultural produce.
- (xii) Limited access to extension services in the county.
- (xiii) Diseases and pests infestation affecting agricultural productivity.
- (xiv) Farm losses and post-harvest waste.

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

### **3.2 Opportunities with COVID-19 in Agricultural Sector**

On linkages to other sectors, the sector is enabled by:

- (i) **Businesses/MSMEs:** Businesses and MSMEs are crucial in providing inputs and requirements to the agricultural sector.
- (ii) Transport, storage and ICT sectors
- (iii) Financial and insurance activities
- (iv) Accommodation food services
- (v) **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:

- (i) Developing county-private partnership in enhancing agro-processing and value addition capacities of counties in: agro-processing plants/industries; construction of abattoirs including poultry slaughterhouses; linking farmers to product markets including bee products, livestock products; construction of milk, meat and leather processing plants.
- (ii) Storage and cooling facilities including milk and semen coolers under the AI programme.
- (iii) Modernization of production from subsistence to commercial agriculture serving both local and export demand.
- (iv) Provision of quality modern livestock and crop inputs including fertilizers, lime products, coffee seedlings, macadamia nuts, Artificial Insemination (AI) services and chicks for poultry farming.
- (v) Adoption of fodder and feed conservation.
- (vi) Adoption of early maturing, drought resistant and improved crop varieties.
- (vii) Strengthening water harvesting, sustainable and efficient irrigation.
- (viii) Adoption of natural resource management to include soil and water conservation, tree planting, and changing of crop type.



- (ix) Enhance supportive services to include early-warning systems, insurance and credit, extension advisory and information services through extension and training on various aspects such as livestock feed conservation techniques.
- (x) Enhancing farmers technical capacities to act on advisory information received.
- (xi) Improved crop and livestock emergencies surveillance systems in the county.
- (xii) Strengthening farmers' associations and cooperatives as an additional solution to marketing challenges

### **3.3 Emerging Issues**

- i) Climate change - defined by the United Nations Framework Convention on Climate Change (UNFCCC) as “a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods” is changing at unprecedented rate and poses a great risk to the agriculturally based county.
- ii) Environmental degradation because of both human and non-human-related activities such as extreme climate conditions. Environmental degradation has reduced resources available for households, livestock and wildlife and likely to lead to increased inter-communities' conflicts within the county.

### **3.4 Recommendations**

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

- (i) Develop partnership with the National Government, NGOs, development partners, research institutions and the private sector in enhancing agro-processing and value addition capacities of the county, particularly in tea, dairy, coffee and horticultural production. Current initiatives include the National Agricultural and Rural Inclusive Growth Project – a World Bank initiative, and Cereal Grower Association through which the county provides support to local farmers for value chain enhancement.
- (ii) Promote poultry production and enhance the poultry value chain among farming households, particularly the women and youth in the county to improve their livelihoods.
- (iii) Invest in storage and cooling facilities, such as semen coolers and milk and vegetables coolers, particularly at collection points to minimize spoilage and post-harvest losses.
- (iv) Access to quality and affordable inputs including certified seeds (e.g., coffee

seedlings, macadamia nuts), water, animal feeds, artificial insemination (AI) services, fertilizers, and livestock vaccination. This can be achieved through cooperatives and farmers associations.

- (v) Digitize the agri-food sector to enhance training and building capacities of farming households in modern agricultural technologies, provision of advisory and information services, marketing agricultural produce at a wider scope beyond the county level and improving access to innovative support services including credit and insurance services.
- (vi) Establish programmes for surveillance of disasters such as extreme weather conditions and pests' invasions 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.
- (vii) There are also opportunities for sensitization programmes and enhancing farmers' ability to adopt sustainable land management practices to minimize environmental degradation.
- (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

Nandi County is endowed with various water resources. There are six (6) permanent rivers in the county, namely: Kipkaren, Kingwal, Kundos, Mokong, Yala and Ainabng'etuny. The county also has numerous permanent springs scattered across all the sub-counties. Shallow wells have also been dug especially in Nandi Hills, Emgwen, Chesumei and Mosop sub-counties. Dams done during the colonial era are also found in parts of Mosop and form major catchment areas for many streams.

There are numerous water supply schemes in the county in both large and community operated schemes. The major schemes include the Kapsabet water supply scheme, which is electricity driven and supplies water to Kapsabet Town and its environs. The scheme is run and managed by Kapsabet Nandi Water and Sanitation Company owned by the county. Other major schemes include Nandi hills water supply, Lelmokwo, Kaptumo, Kobujoi, Sarora, Kabiyet, Kimatkei, and Keben water supply schemes. In addition, there are approximately 150 small water schemes run and operated by community project management committees. There were plans by the county in partnership with Lake Victoria North Water Services Board to undertake the construction of Keben Water Project, which will form the main source of water by gravity to Kapsabet and Nandi hills town.<sup>2</sup>

Sewerage coverage within the county is very low. Only Kapsabet town has a functioning sewer system, which is inadequate to cater for the needs of the entire town population. The facility is dilapidated, hence it needs to be upgraded. Other upcoming urban areas such as Nandi Hills, Mosoriot, Kabiyet, Kobujoi and Baraton lack sewer facilities.

Sanitation coverage remains low in the county with little access to piped sewer. This presents an opportunity for the county to increase sanitation coverage to increase its additional revenue collection from sanitation services. Increased access to piped water by rural and peri-urban households can also be potential for revenue.

#### Access to source of water by households

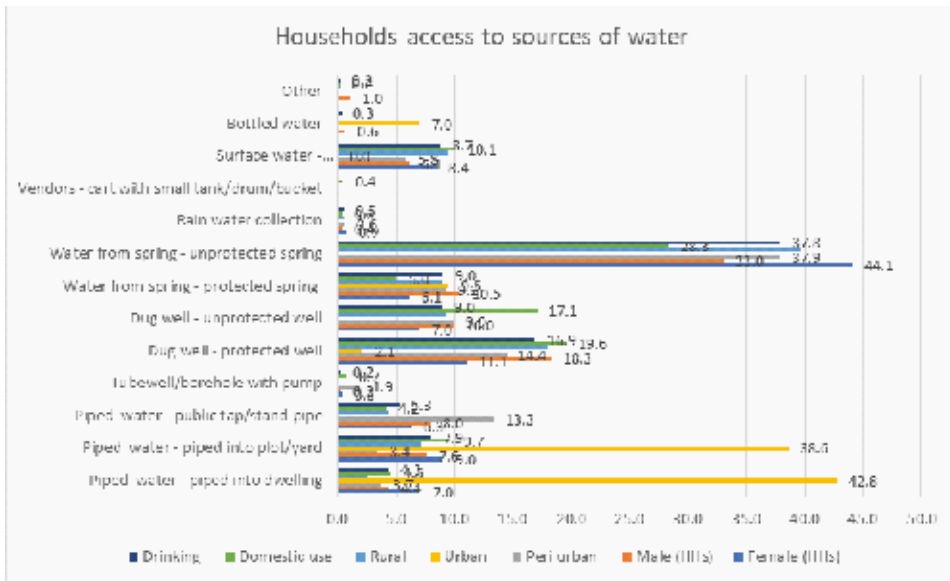
According to KHIBS 2016, the major source of water for drinking utilized by households in the county are water from unprotected springs (37.8%), water from protected springs (9.0%) and protected dug well (16.9%). Water from unprotected

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2 Nandi County 2018-2020 CIDP.

spring is also commonly used by rural areas (37.8%) and peri-urban (37.9%) households. Most of the urban (42.1%) households have access to piped water in the dwelling and in the plot (36.5%). Further, most female (44.1%) than male (33%) headed households use water from unprotected springs as shown in the figure below.

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



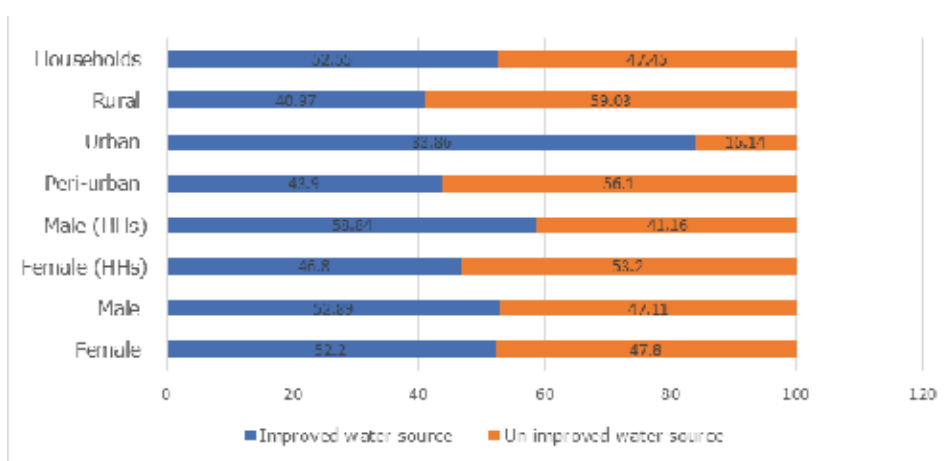
Source: KNBS 2015/2016

Most of the households in the county rely on water from the springs (unprotected) and well as water from dug wells and piped water harvested in dams. There is a risk of the water sources drying up during dry months. This therefore means that 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, there is need for the county to invest in rainwater and surface water harvesting since the county receives enough rainfall. This can be achieved by encouraging and supporting rainwater harvesting at household and institutional level. This may include supporting schools in building rain harvesting and storage structures from the school structure rooftops.

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

Clean and safe water is essential for good health and goes a long way in ensuring reduced infections. Access to improved sources of drinking water<sup>3</sup> is above average among households (52.5%), though this is low in rural areas (40.0%) and peri-urban (43.9%) compared to urban households (83.9%). Additionally, both male and female-headed households have high access to improved drinking water source as shown in the figure below.

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



Source: KNBS 2015/2016

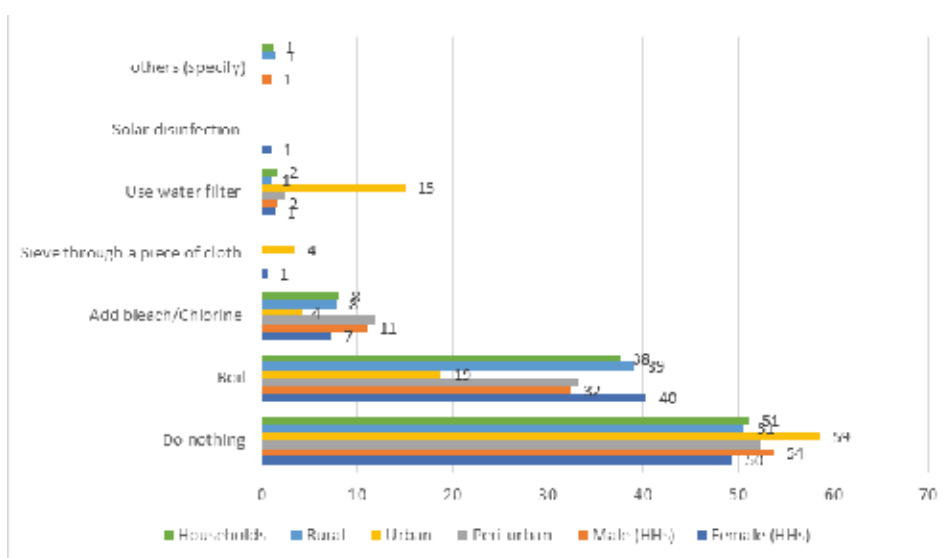
Improved sources of water can also go a long way in reducing infections, and therefore the need for the county to increase access to improved sources of water. This may involve increasing piped water coverage, boreholes and wells and continuous protection of springs. One mitigation measure that may be undertaken by the county to increase access to improved water source includes connecting the households with piped water, increasing the development of improved sources of water especially in rural areas by conserving the existing water catchment areas, better methods of farming. Long term measures to support access to water by 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.

<sup>3</sup> 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/standpipe, 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.

## Access to water treatment methods

Majority of the households (51.1%), both those in rural (50.6%), urban (58.6%), and peri-urban (52.2%) do nothing to make it safe for drinking (of the weighted household sample). Female (40.4%) headed households and rural (40.4%) households have a higher chance of boiling water to make it safe for drinking. Urban households (15.5%) are more likely to use water filters to make water for drinking safe.

**Figure 4.3: Access to safe drinking water by households**



Source: KNBS 2015/2016

Clean safe drinking water is important in reducing infectious diseases. The top interventions to make drinking water safe is to sensitize households on the importance of water treatment, supply households with treated piped water, and provision of water treatment facilities and chemicals to households, and erecting water treatment facilities at public water points.

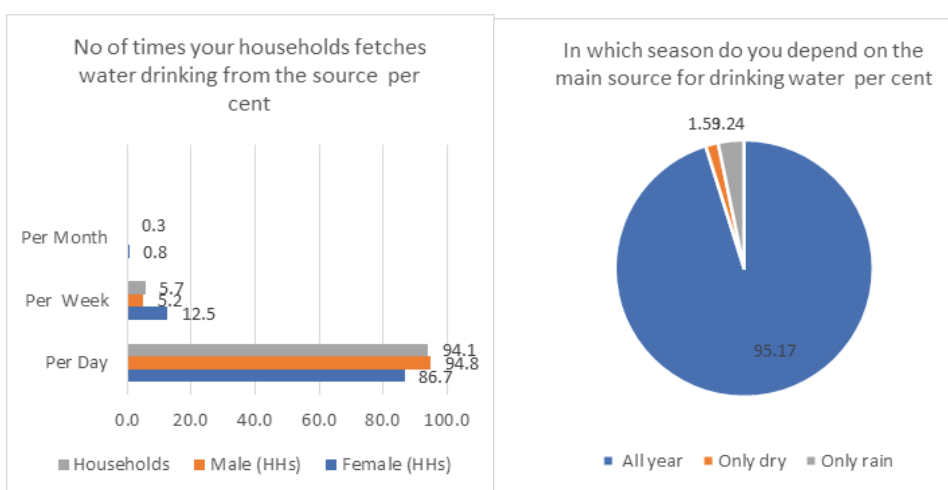
## Access and reliability of water sources

Most households (95.2%) rely on the main source of drink water all year round. Most households (94.1%) access drinking water sources daily; this is more among male (94.8%) than female (86.1%) headed households. This means that there is more interactions with other household members in areas where water sources are shared; this may lead to increase on infections of COVID-19 where COVID-19 guidelines of social distance and avoidance of crowded place may not be observed. It also means that these households may be at risk of water shortages during

days when supply is low, or any interruption in water supply. One intervention to ensure households observe handwashing is to ensure they have water storage facilities to store water for use all the time in instances where there's water supply interruptions and to minimize more interactions of household members at water points.

The top interventions are protection of the existing major water sources for households and development of new water sources to minimize on over-dependence on source. This may include rainwater harvesting at individual and institutional level and protection of water catchment areas.

**Figure 4.4: Access and reliability of water sources**

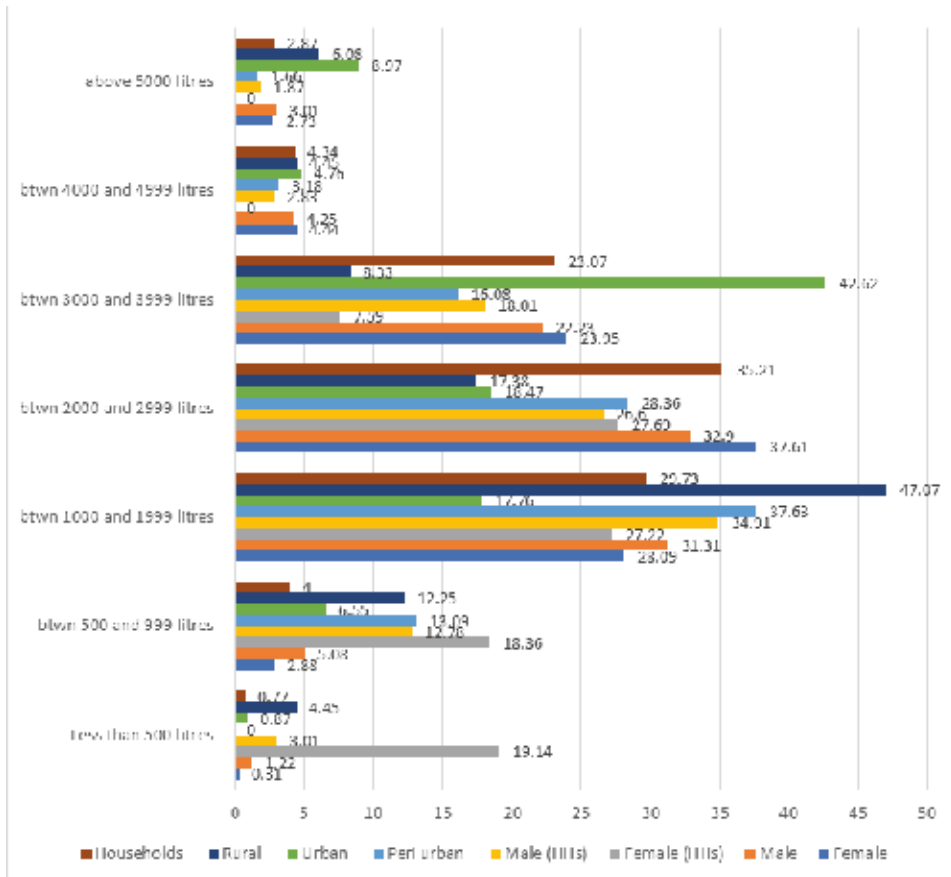


Source: KNBS 2015/2016

### Volumes of water used by households in the past 1 month

Most of the households (47.4%) and rural (47.0%) and peri-urban (37.6%) use between 1,000 and 1,999 litres of water per month. Similarly, most male (34.6%) and female (27.2%) headed households have used between 1,000 and 1,999 litres of water per month. This therefore means that adequate water resources are required by households and therefore better utilization of the resource is required. This may entail conservation of water resources, and investing in rainwater harvesting.

**Figure 4.5: Volumes of water used by households in the past month**



Source: KNBS 2015/2016

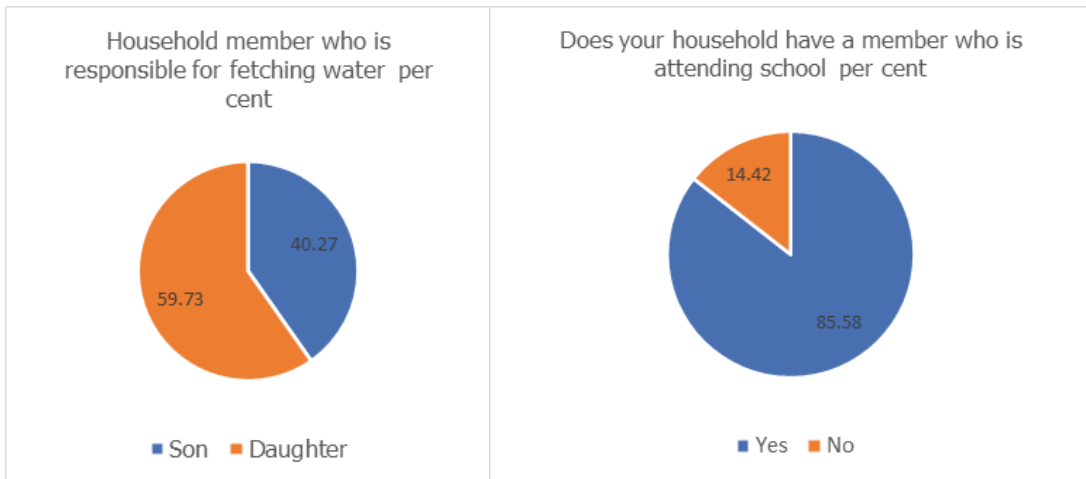
**Children and households’ access to water**

Children play an important role in supporting household chores, such as cooking, collecting firewood, and fetching water and looking after animals. When schools are out of session, and majority of children are at home and may be helping in fetching water thus increasing households’ access to water thus observing COVID-19 guidelines on hand hygiene. According to KNBS (2020) survey on COVID-19, majority of households (85.6%) have a member who attends school. Additionally, more girls (59.7%) than boys (40.3%) are involved in fetching water for the households. This means that households will be deprived of access to water when schools re-open since boys and girls play an important role in fetching water. Similarly, since girls are more involved in fetching water, this means they spend most of their time in the activity and interfere with their schooling, leading to school dropouts. Therefore, to ensure households access to water and hand hygiene, the County Government can help with low-cost supply of water and



provision of water storage facilities to those households with schooling member to help increase water access when schools re-open.

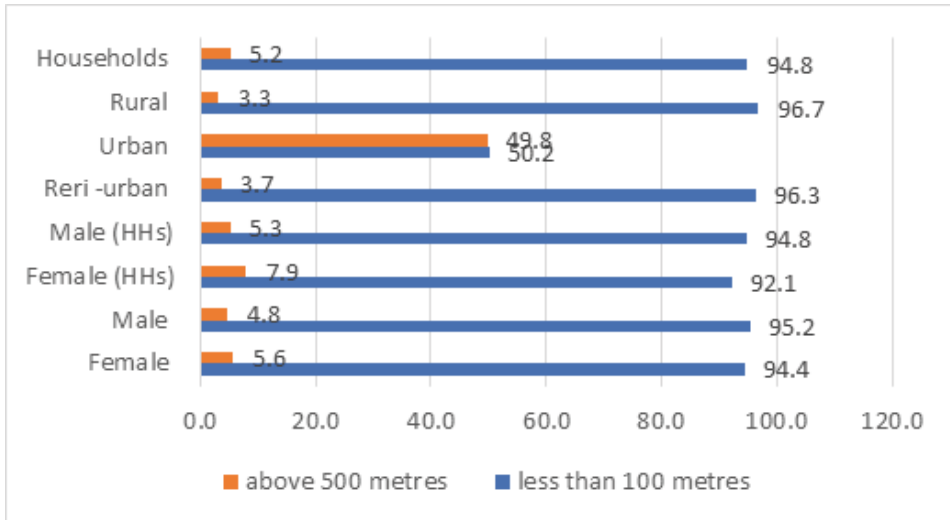
**Figure 4.6: Households with a member who is attending learning institutions and who usually fetches water**



Source: KNBS 2015/2016

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

Majority of households (94.8%) both rural and peri-urban cover 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**

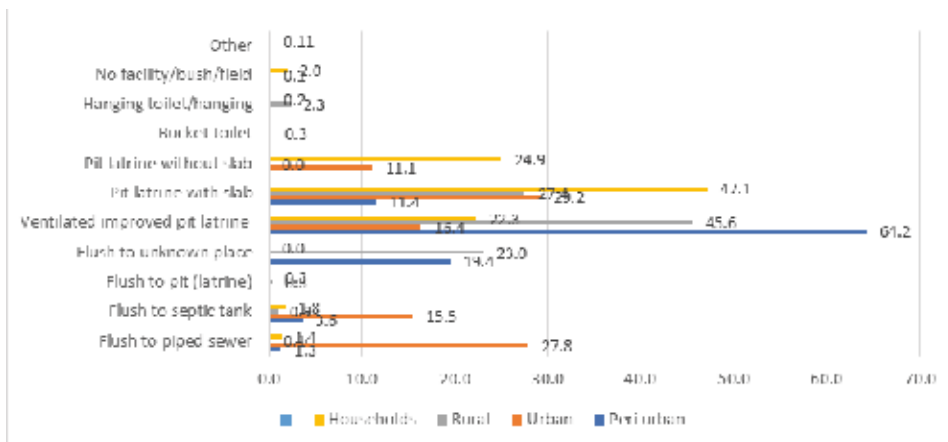
Source: KNBS 2015/2016

Difficulties in access to water points due to distance and time spend may limit households from hand washing, thus putting them at risk from contracting COVID-19. Therefore, households living far from water sources can be supported by having water tanks close to their homes and supplying water to them.

### Access to sanitation

Majority of the households use pit latrine with slab (47.1%). This is also common among rural (27.4%), urban (29.2%) households, while most of the peri-urban (64.2%) households use ventilated improved pit latrine. There is a small proportion of households that do not have a toilet facility as shown in the figure below.

**Figure 4.8: Access to sanitation by households**

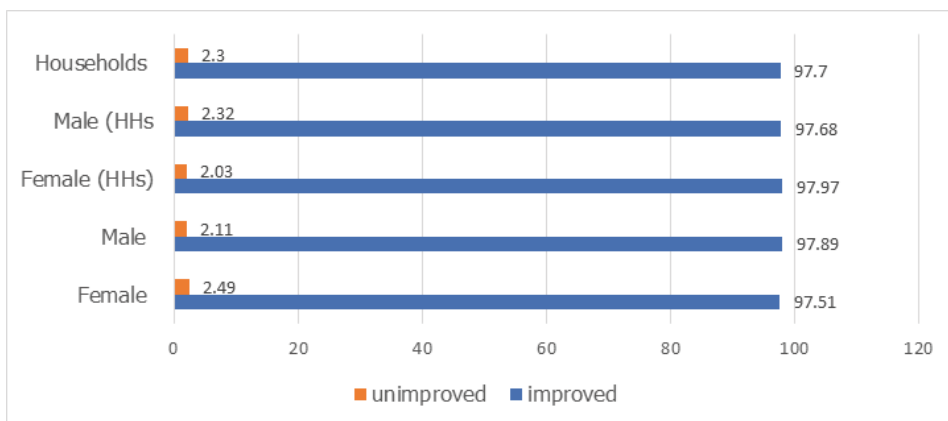


Source: KNBS 2015/2016

**Access to improved and unimproved sanitation**

Majority of the households (97.7%) have access to improved sanitation facilities.<sup>4</sup> This is also similar among male (97.7%) and female (98.0%) headed households.

**Figure 4.9: Access to improved and unimproved sanitation**



Source: KNBS 2015/2016

Access to improved sanitation is very important in maintaining hygiene and

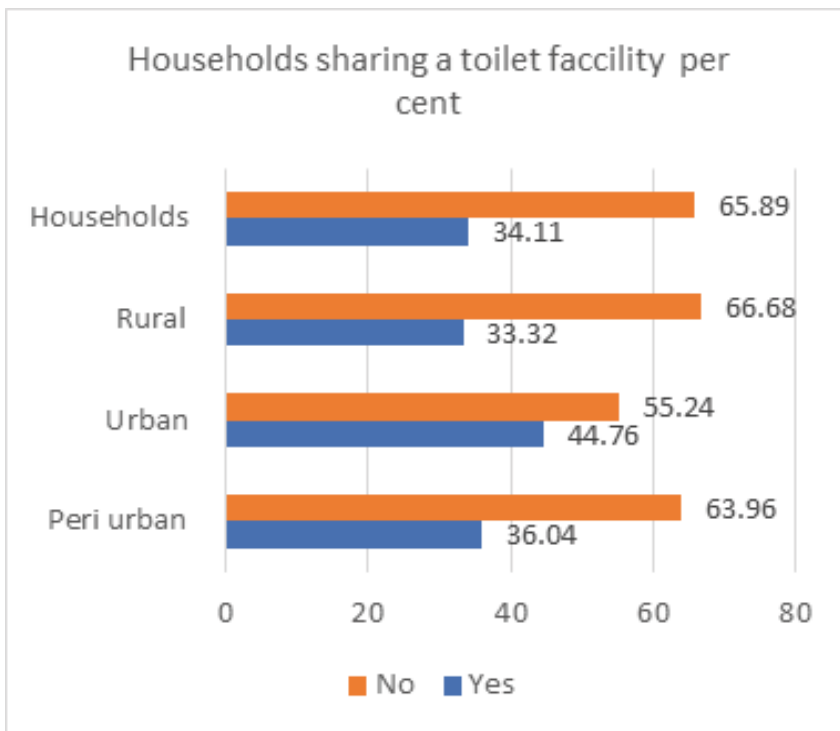
<sup>4</sup> Improved sanitation includes flush to piped sewer, flush to septic tank, flush to pit (latrine), flush to somewhere else, flush to unknown place, ventilated improved pit latrine, pit latrine with slab, pit latrine without slab). Unimproved sanitation includes composting toilet, bucket toilet,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

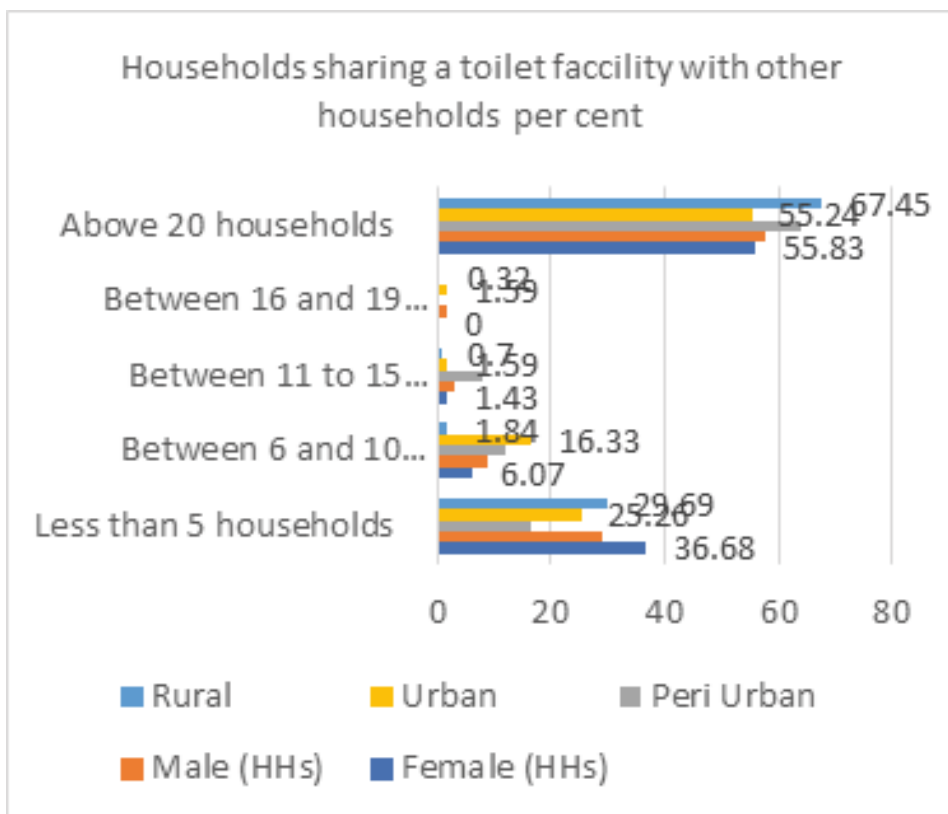
keeping infectious diseases away. Good sanitation can help detect the genetic residues of diseases in wastewater as those who are infected are thought to shed traces of the virus in faeces, thus prompting for immediate action from health officials.

### Sharing of a toilet facility

Additionally, majority of households (34.1%), rural (33.3%), urban (44.8%) peri-urban (36%) share a toilet facility with other households. This is also common among male (42.8%) and female (45.1%) headed households. Most households (66%) share a toilet facility with more than 20 households (male-headed households 57.8% and female-headed households 55.8%). 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 and social distancing measures. Similarly, WHO guidelines require separate sanitation facilities for suspected COVID-19 cases, which households may not be able to achieve.

**Figure 4.10: Households sharing a toilet facility with other households**

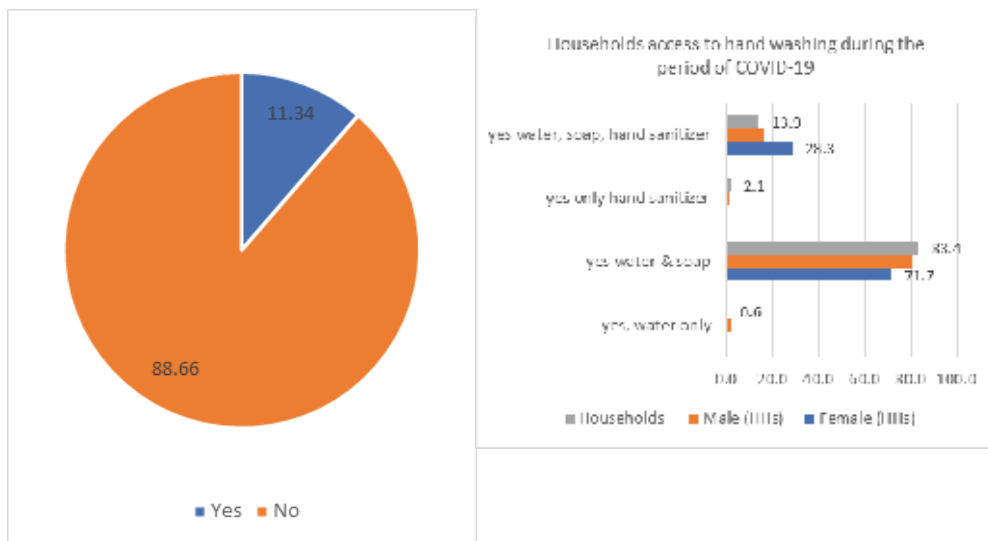




Source: KNBS 2015/2016

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

WASH has been identified as very important in helping to curb transmission of infectious diseases; currently most households (88.7%) do not have a hand-washing facility in their households. Despite this, most households (83%) have access to WASH (water and soap) during this period of COVID-19. This is more among male (81.1%) than female (71.7%) headed households. An additional 2.1 per cent of the households have access to both water, soap and hand sanitizer.

**Figure 4.11: Access to wash during the COVID-19 period**

Source: May 2020 KNBS COVID\_19 survey

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 can be facilitated by provision of water, soap/hand sanitizer to households. In terms of gender participation in WASH, men are more involved in water sourcing than women, though women spend more time in water sourcing, an average of 41 minutes than men as shown below. There are also water vendors who sell water to residents especially in urban centres and small market centres.

## 4.2 Opportunities with COVID-19 in Water, Sanitation and Hygiene

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

## 4.3 Emerging Issues

Among measures put in place to mitigate the effect of COVID-19 under water and sanitation include: the county prepared a supplementary budget amounting to Ksh 171 million to manage the pandemic. Some Ksh 126 million was rechanneled from county water sector projects meant for various wards. The county has also purchased water drilling machines, hence reduced the fees paid for water from Ksh 3,000 per metre to Ksh 1000 per metre.

## **Key messages**

Clean and safe water remains essential in the fight against COVID-19. Water is utilized for maintaining hygiene more so in hand washing and other specialized uses in households, institutions and in public places.

- (i) Most rural (50.1%) urban (93.0%) and peri-urban (55.7%) households in the county have a higher access to improved sources. This is in comparison to the national average of rural (79.0%), urban (85.0%) and peri-urban (66.7%). Clean and safe water guarantees good health, leading to low health expenditure among households.
- (ii) There is low access to piped water in the county, both in rural (14.1%) and peri-urban (20.4%) compared to urban areas (81.0%). 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 risk to water-related diseases.
- (iii) Access to improved sanitation remains high both in rural (97.5%) urban (100%) and peri urban households (100%).
- (iv) Households' connectivity to piped sewer is less than 1 per cent, both in rural and peri-urban areas compared to urban (27.8%). Low connectivity to piped sewer denies households from access to safe sanitation and revenue from sanitation services.
- (v) Sharing of a toilet facility with other households is common but low in rural areas (33.3%) and peri-urban (36.0%) compared to urban (44.0%). Toilet sharing puts households at risk of contracting COVID-19, and other infectious diseases in cases where proper toilet hygiene is not maintained.
- (vi) There is a higher access to hand washing, with majority having access to WASH (water and soap) (83%), while only 14 per cent of households had access to both water, soap and hand sanitizer during this period of COVID-19. This minimizes the risks of infections.
- (vii) On the other hand, 94.9 per cent of households do not have a designated hand-washing facility in their households. This may put households at risk of contracting infection due to inability of maintaining hand hygiene.

## **4.4 Recommendations**

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

- (i) Expand and rehabilitate the existing piped water connection infrastructure to help increase access to water.
- (ii) Increase water supply in households, institutions and public places through drilling of boreholes in all the sub-counties.
- (iii) Undertake water trucking during times of prolonged drought and emergencies to households with water deficiencies.

- (iv) Promote capacity building to water service providers.
- (v) Expand sewer infrastructure to accommodate more households.
- (vi) Support households in rural and peri-urban areas to access improved sanitation facilities by construction of toilets in community, schools and in public places.
- (vii) Promote the importance of handwashing and construct WASH facilities to increase access at the household level.
- (viii) Promote awareness on proper hygiene and sanitation.
- (ix) Provide maximum protection to employees working in water and sanitation through provision of personal protection equipment.
- (x) Fast-track and implement policy on water governance and environment conservation and management.
- (xi) To help realize full agricultural potential, the county is committed in supporting agriculture through the development of irrigation infrastructure and by mainstreaming agriculture water and natural resources in county planning and budgeting processes. These strategies include promotion of irrigation farming by provision of water for irrigation.



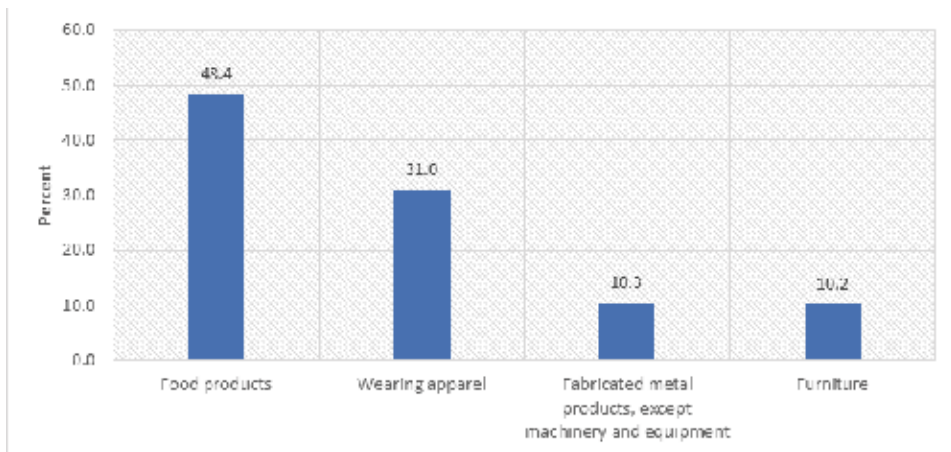
## 5. Manufacturing, Trade and Industry

### 5.1 Characteristic of Manufacturing Sector

Nandi County has 2,011 establishments involved in manufacturing activities, which comprise of 13.8 per cent of a total of, 14,610 firms (KNBS, 2016). 94.6 per cent are micro in size while 5.4 per cent are small-sized. The main drivers of the economy of the county include agriculture (60.0%), services (34.0%), and manufacturing (3.4%) (GCP, 2019).

#### Sector of operation

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



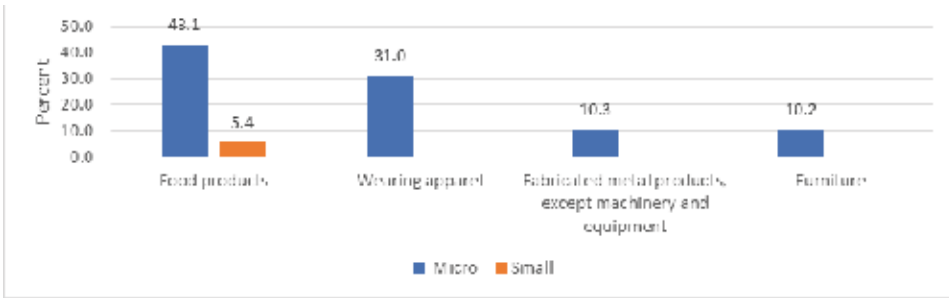
*Source: KNBS (2016)*

The KNBS 2016 survey establishes the key sub-sectors that drive manufacturing to include: food products (10.3%), and furniture (10.2%). These are sub-sectors that are considered essential in dealing with COVID-19 and are likely to experience increased activity with focus on food production, production of Personal Protective Equipment (PPEs) and hospital beds. The key products useful in value addition and driving manufacturing include maize, wheat, potatoes, and horticultural crops and textiles, dairy, beef cattle, goats, and sheep. The industries critical in driving manufacturing in the county are involved in timber lumbering, coffee, milk, honey value addition and other agro-processing cottage enterprises.

### Sector of operation by size

Majority of the establishments in Nandi County are micro in nature and operate in the food products (43.1%), wearing apparel (31.0%), and fabricated metal products, except machinery and equipment (10.3%) and furniture (10.2%) (Figure 5.2). Small-sized establishments operate in food products only (5.4%).

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

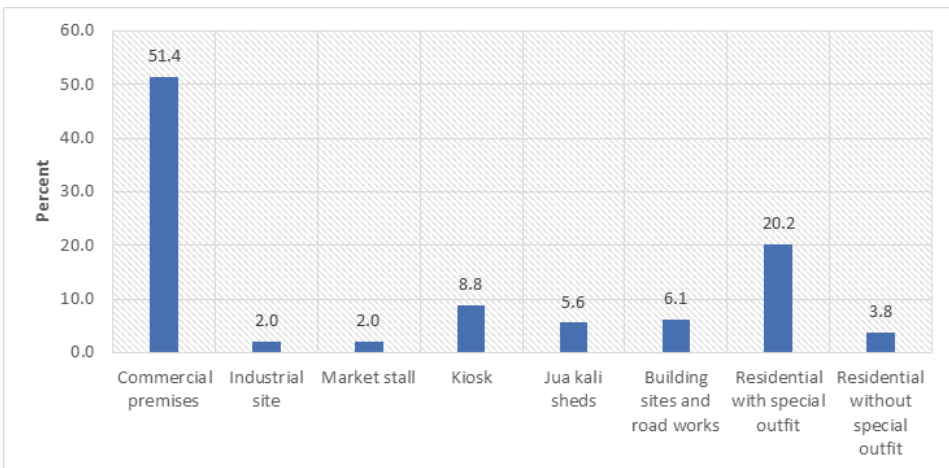


Source: KNBS (2016)

### Location of manufacturing firms by type of premises

Common premises used by manufacturing firms in Nandi County are commercial (51.4%), residential with special outfit (20.2%), kiosk (8.8%), building sites and road works (6.1%), among others (Figure 5.3).

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



Source: KNBS (2016)

### Distribution of manufacturing firms by gender and size

Manufacturing establishments in Nandi County are mostly owned by male (54.2%), with females comprising 19.7 per cent while 26 per cent are jointly owned. In terms of micro-sized firms, 54.2 per cent are male-owned, 19.7 per cent female-owned and 21.8 per cent jointly owned. Small-sized firms are all jointly owned (100%) (Table 5.1).

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

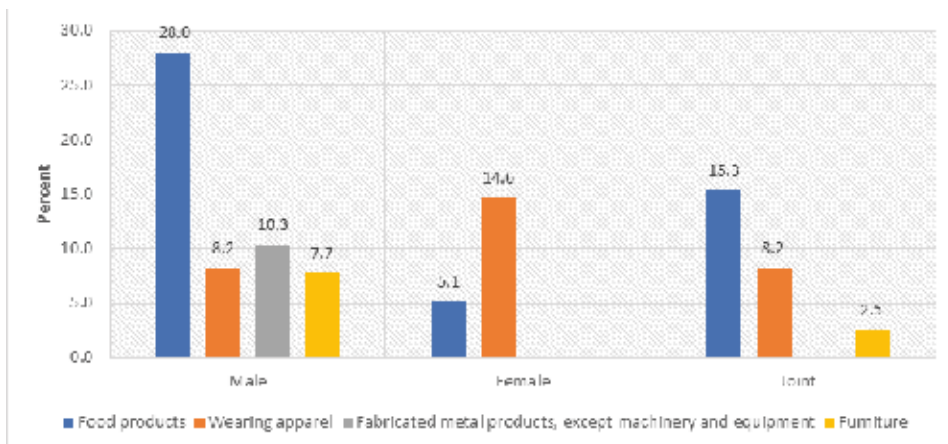
Gender	A11	Micro	Small
Male	1,090 (54.2)	1,090 (54.2)	-
Female	397 (19.7)	397 (19.7)	-
Joint	523 (26)	415 (21.8)	108 (100)
Total	2,011 (100)	1,902 (100)	108 (100)

Source: KNBS (2016)

### Distribution of manufacturing firms by gender and sector

Majority of the sub-sectors in manufacturing are male-dominated, including food products (28.0%), fabricated metal products, except machinery and equipment (10.3%), wearing apparel (8.2%), and furniture (7.7%). Females are mostly found in the wearing apparel (14.6%) and food products (5.1%). There is also joint ownership in the following sectors: food products (15.3%), wearing apparel (8.2%), and furniture (2.5%) (Figure 5.4).

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



Source: KNBS (2016)

In terms of employment, the manufacturing sector employs more men (77.9%) than women (22.1%). Most men are found in the micro-sized enterprises (51.1%) while 26.8 per cent are in small-sized establishments. Women are predominantly in the micro enterprises (22.1%). (Table 5.2).

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

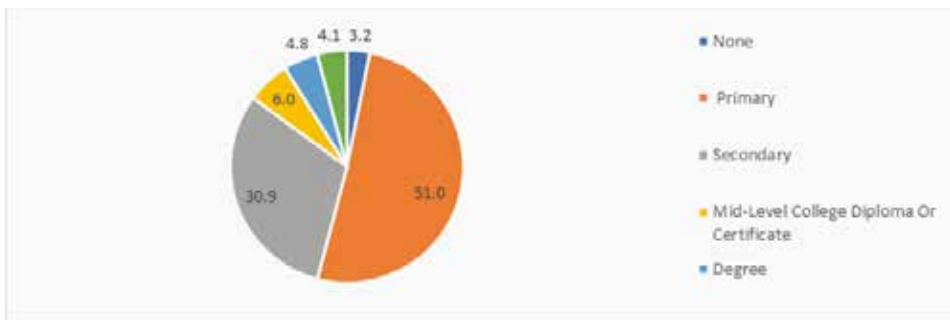
Number of employees	Micro	Small	Total
Male	2,688 (51.1)	1,408 (26.8)	4,095 (77.9)
Female	1,159 (22.1)	0 (0)	1,159 (22.1)
Total	3,847 (73.2)	1,408 (26.8)	5,255 (100)

Source: KNBS (2016)

### Education levels of manufacturing firm owners

Majority of owners of firms in manufacturing have primary (51.0%), secondary (30.9%) and mid-level college diploma or certificate (6.0%) education (Figure 5.5). About 3.2 per cent of the manufacturing firm owners do not have formal education.

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

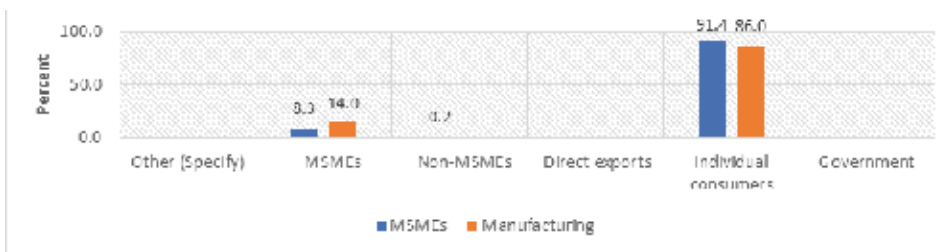


Source: KNBS, 2016

### Source of markets

Majority of manufacturing establishments and MSMEs in general rely on individual consumers for markets at 86 per cent and 91.4 per cent, respectively (Figure 5.6).

**Figure 5.6: Source of markets**



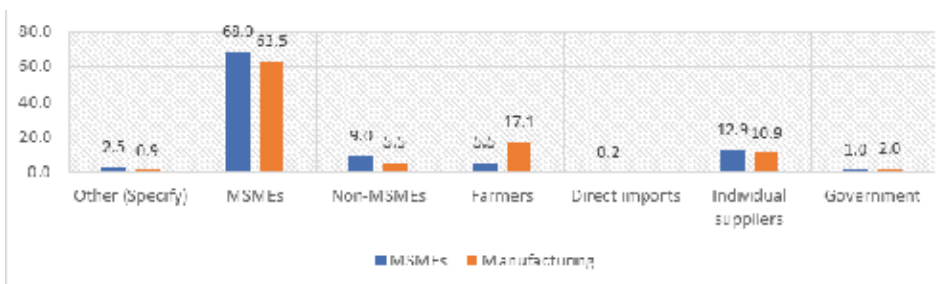
Source: KNBS (2016)

Additionally, trading among MSMEs is profound between manufacturing establishments at 14 per cent and 8.3 per cent for MSMEs. There are no manufacturing establishments or MSMEs in the county that are involved in direct exports, implying little exposure to external shocks as a result of COVID-19 (Figure 5.6).

### Source of material inputs

Broadly, manufacturing establishments and MSMEs source for material inputs from among MSMEs and manufacturing at 68.9 per cent and 63.5 per cent, respectively (Figure 5.7). Individual suppliers and non-MSMEs are also important in the supply of inputs. MSMEs also source for inputs from farmers (5.5%), government (1.0%) and direct imports (0.2%) (Figure 5.7). Disruptions in the external source markets have therefore limited implications to MSME operations in Nandi County.

**Figure 5.7: Source of material inputs**



Source: KNBS (2016)

### Level of innovation by firms in manufacturing

Manufacturing establishments in Nandi County were involved in product, process and market innovations. More product innovations are seen under the micro category at 6.5 per cent, process (6.1%) and market (4.2%). In the small category,

the manufacturing enterprises were only involved in process innovation at 5.5 per cent (Table 5.3).

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

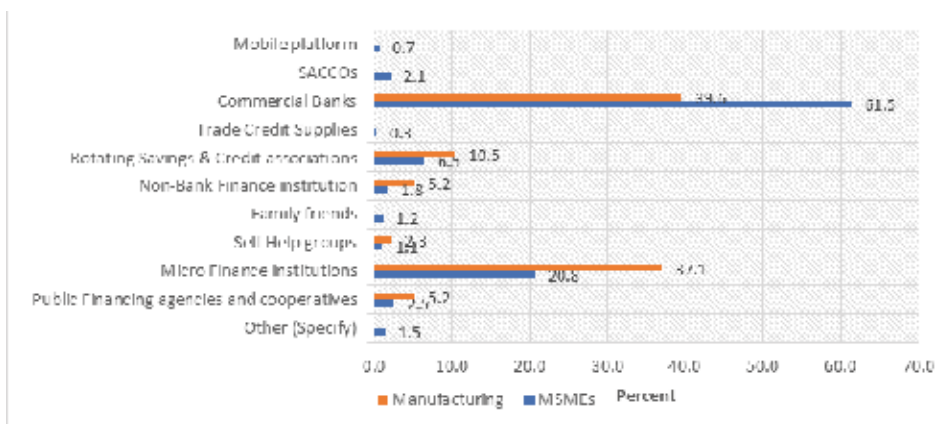
Type of innovation	Micro			Small		Total
	Don't know	No	Yes	No	Yes	
Product	0 (0)	1,734 (88)	127 (6.5)	108 (5.5)	0 (0)	1,970 (100)
Process	0 (0)	1,741 (88.4)	120 (6.1)	0 (0)	108 (5.5)	1,970 (100)
Market	0 (0)	1,779 (90.3)	82 (4.2)	108 (5.5)	0 (0)	1,970 (100)

Source: KNBS (2016)

### Access to credit for manufacturing and MSMEs firms

According to the MSME 2016 survey, 61.6 per cent of MSMEs and 61.0 per cent of those in manufacturing applied for credit. The main sources of credit for establishments in manufacturing include commercial banks (39.6%), microfinance institutions (37.1%), rotating savings and credit associations (10.5%), among others. MSMEs largely rely on commercial banks (61.5%), micro finance institutions (20.8%), and rotating saving and credit associations, among others (Figure 5.8).

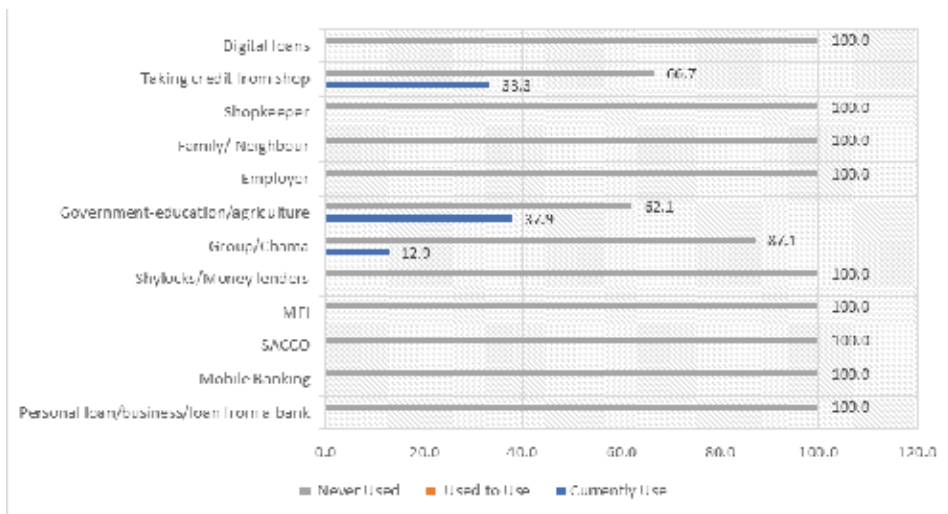
**Figure 5.8: Sources of finance**



Source: KNBS (2016)

Recent evidence from FinAccess 2019 provides further insights on sources of credit for businesses in Nandi County. Businesses commonly obtain credit from conventional sources such as government credit for purposes of agriculture education (37.9%), shops (33.3%), and group/chama (12.9%) (Figure 5.9).

**Figure 5.9: Recent sources of credit**

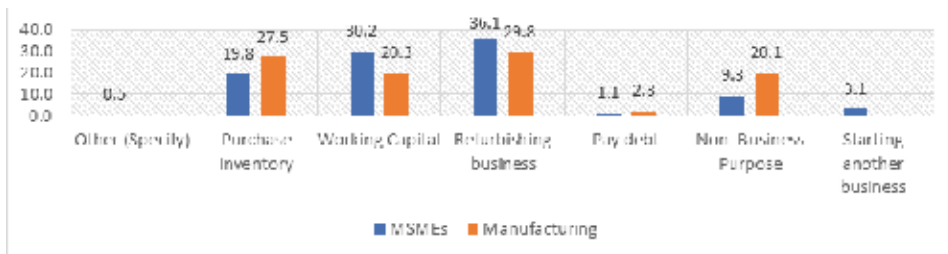


Source: FinAccess (2019)

**Purpose of credit**

Figure 5.10 presents the main purpose of credit by both MSMEs and establishments in manufacturing. Broadly, manufacturing firms require credit for: business refurbishment (29.8%), purchase of inventory (27.5%), and working capital (20.3%), among others. MSMEs in Nandi County require credit for business refurbishment (36.1%), working capital (30.2%), and purchase inventory (19.8%), among others.

**Figure 5.10: Main purpose of credit**

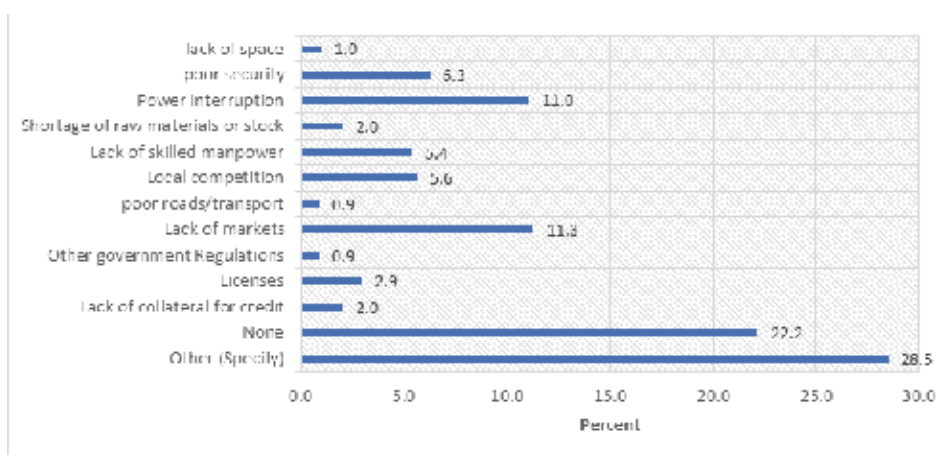


Source: KNBS (2016)

## Constraints faced by manufacturing firms

The main constraints faced by establishments in manufacturing include lack of markets (11.3%), power interruption (11.0%), poor security (6.3%) and lack of skilled manpower (5.4%) (Figure 5.11).

**Figure 5.11: Constraints faced by manufacturing firms**



*Source: KNBS (2016)*

Addressing some of these challenges by creating and maintaining an enabling environment would be key to re-engineer and promote business growth and investment during and post the COVID-19.

## Industrial parks/ Jua kali sheds

There are no industrial parks in the county. However, the County Government through the department of trade, investment and industrialization in partnership with EPZA is setting up an industrial park in Chemase. There are Jua Kali sheds that are operational in the two major towns i.e., Nandi Hills and Kapsabet.

## Markets

There are 223 trading centres under the jurisdiction of county of Nandi, 34 under the Urban Council of Kapsabet and 12 under the Urban Council of Nandi Hills.

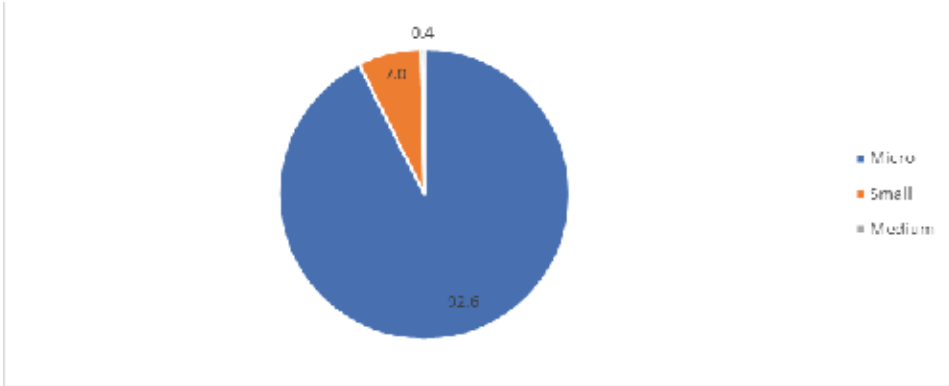
### b) Micro, Small and Medium Enterprises (MSMEs)

The MSME 2016 survey estimates indicate that Nandi County has 14,610



establishments<sup>5</sup> (KNBS, 2016). Out of this: 13,527 (92.6%) are micro, 1,024 (7.0%) are small and 59 (0.4%) are medium enterprises (Figure 5.12).

**Figure 5.12: Distribution of MSMEs by size**

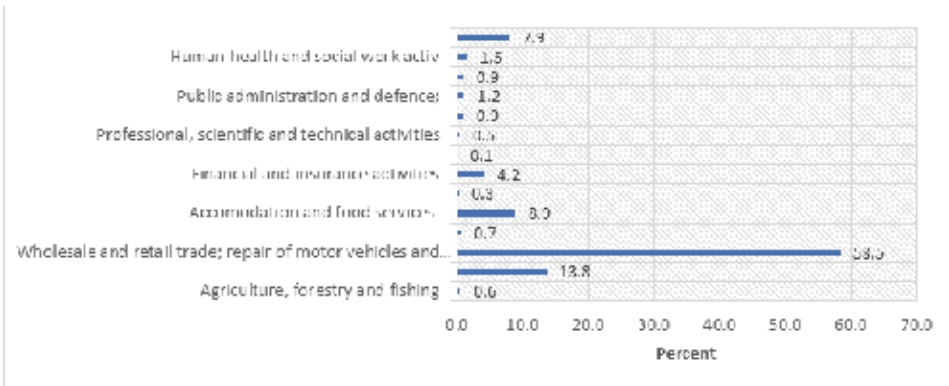


Source: KNBS (2016)

**Sector of operation by MSMEs**

Majority of MSMEs in Nandi County operate in the wholesale and retail trade; repair of motor vehicles and motorcycles (58.5%), manufacturing (13.8%), accommodation and food services (8.9%), arts, entertainment and recreation (7.9%), financial and insurance services (4.2%) (Figure 5.13).

**Figure 5.13: Sector of operation by MSMEs**



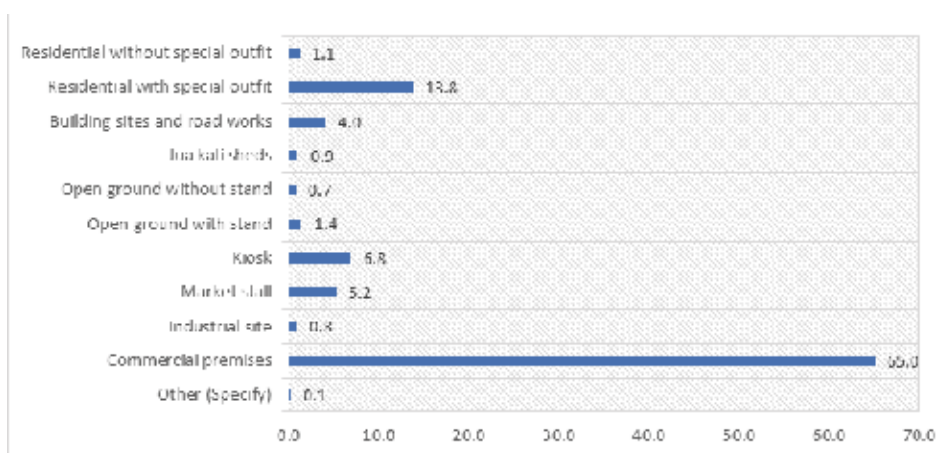
Source: KNBS (2016)

5 After applying weights.

### Location of the businesses by type of premises

MSMEs in Nandi County are largely located in commercial premises (65.0%), residential with special outfit (13.8%), kiosk (6.8%), and market stalls (5.2%) (Figure 5.14).

**Figure 5.14: Location of businesses by premises**



Source: KNBS (2016)

Majority of the businesses in the county faced a lot of difficulties in meeting their rental obligations due income disruptions occasioned by COVID-19. The May 2020 KNBS COVID-19 survey indicates all the non-farm businesses attributed non-payment of household rental obligations to reduced incomes/earnings. For those involved in farm businesses, 40.1 per cent attributed the same to reduced incomes/earnings, 40 per cent due to temporary layoffs/closure of businesses while 19.9 per cent were affected by delayed incomes/earnings.

### Distribution of MSMEs by gender and size

Table 5.4 shows the distribution of MSMEs in Nandi County by gender: 54.1 per cent are male-owned, 25.3 per cent are female-owned, while 20.6 per cent are jointly owned (male/female). For micro establishments, 55.9 per cent are male-owned, 26.7 per cent are female-owned, while 17.4 per cent are jointly owned. The small-sized establishments are also male dominated at 33.6 per cent, female (8.6%) while 57.8 per cent are jointly owned.

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

Gender	All	Micro	Small	Medium
Male	7,903 (54.1)	7,559 (55.9)	344 (33.6)	0 (0)
Female	3,702 (25.3)	3,614 (26.7)	88 (8.6)	0 (0)
Joint	3,005 (20.6)	2,354 (17.4)	592 (57.8)	59(100)
Total	14,610 (100)	13,527 (100)	1,024 (100)	59(100)

Source: KNBS (2016)

In terms of employment, the micro sized establishments employ more people (62.8%) compared to small (28.9%), and medium (8.4%) and large (7.3%) (Table 5.5). Micro firms employ 37.8 per cent male and 25 per cent female and small sized employ 19.2 per cent male and 9.6 per cent female. Equally, more men are employed among medium establishments at 4.8 per cent while females include 3.5 per cent, respectively. Overall, more men (61.9%) are employed by MSMEs in Nandi County than women (38.1%).

**Table 5.5: Employment by gender and size and (%)**

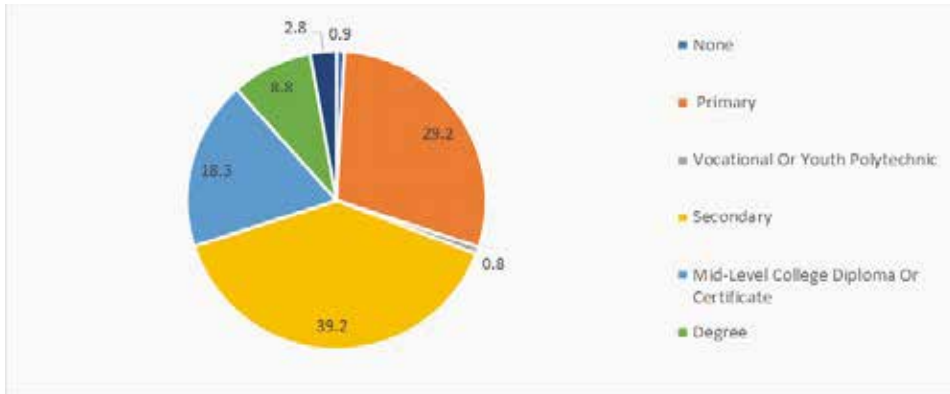
	Micro	Small	Medium	Total
Male	20,034 (37.8)	10,197 (19.2)	2,562 (4.8)	32,793 (61.9)
Female	13,233 (25)	5,106 (9.6)	1,876 (3.5)	20,215 (38.1)
Total	33,267 (62.8)	15,303 (28.9)	4,438 (8.4)	53,008 (100)

Source: KNBS (2016)

### Education levels of MSME owners

Figure 36 indicates that majority of MSME owners in Nandi County have a secondary education (39.2%) while 29.2 per cent have primary and 8.8 per cent degree education, respectively (Figure 5.15). Interestingly, 18.3 per cent of the owners did not have a formal education.

**Figure 5.15: Education levels of MSME owners**



Source: KNBS (2016)

### Level of innovation by MSMEs

Table 5.6 presents the levels of innovation in Nandi County by MSMEs according to size. Generally, there were low levels of innovation across MSMEs, with 11.7 per cent involved in product, 2.0 per cent for process, and 5.4 per cent in market innovation for micro-sized enterprises. Regarding small-sized enterprises, 1.5 per cent engaged in product, 1.5 per cent process and 0.6 per cent market innovation. With regard to medium sized enterprises, 0.2 per cent are engaged in product, 0.3 per cent process and 0.4 per cent market innovations, respectively.

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

Type of Innovation	Micro				Small				Medium		Total
	Refused to answer	Don't know	No	Yes	Refused to answer	Don't know	No	Yes	No	Yes	
Product	0 (0)	0 (0)	11,562 (81)	1,675 (11.7)	0 (0)	0 (0)	772 (5.4)	207 (1.5)	36 (0.3)	23 (0.2)	14,276 (100)
Process	0 (0)	41 (0.3)	12,912 (90.4)	284 (2)	0 (0)	0 (0)	759 (5.3)	220 (1.5)	23 (0.2)	36 (0.3)	14,276 (100)
Market	0 (0)	41 (0.3)	12,423 (87)	774 (5.4)	0 (0)	0 (0)	895 (6.3)	84 (0.6)	0 (0)	59 (0.4)	14,276 (100)

Source: KNBS (2016)

## E-commerce

Participation in e-commerce by households in Nandi County is above the national average. About 2 per cent of the households participate in online e-commerce, which is below a national average of 4.3 per cent (KPHC, 2019). In comparison, men participate more in online e-commerce (2.5%) than women (1.6%). With introduction of stay-at-home protocols due to COVID-19 online trade has been expected to thrive, little may be impacted in Nandi County since fewer households participate in the same.

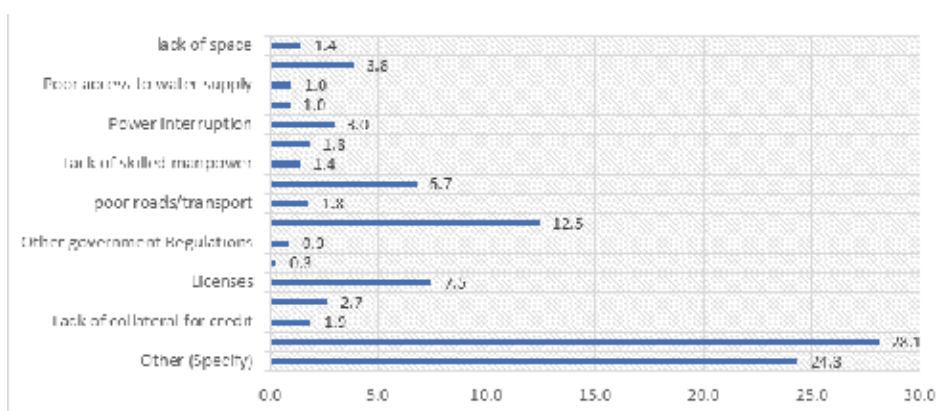
## Turnover tax

Going by the MSME 2016 survey, only 11.2 per cent of MSMEs in Nandi County (15,410) had a previous monthly turnover of above Ksh 83,333, which translates to Ksh 1 million a year. Holding all other factors constant, this would be the establishments that are eligible for turnover tax with the new thresholds recently introduced via 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 main constraints faced by MSMEs in Nandi County include lack of markets (12.5%), licenses (7.5%), and local competition (6.7%) (KNBS 2016) (Figure 5.16).

**Figure 5.16: Main constraints faced by MSMEs**



Source: KNBS (2016)

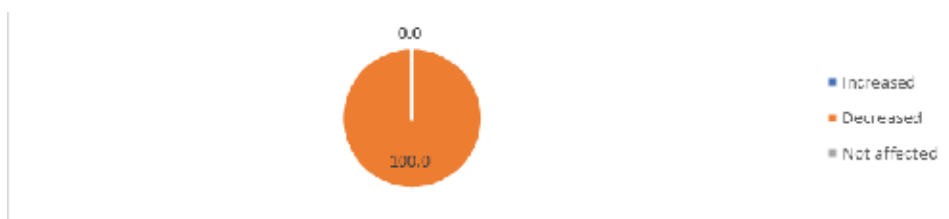
A study on County Business Environment for MSEs (CBEM) identified other constraints faced by MSMEs in Nandi County as: financial and technical capacity, market environment, and worksite and related infrastructure (KIPPRA, 2019). On worksites, MSEs face inadequate and unequipped worksites, lack of public

toilet facilities, lack designated areas for waste disposal, poor road infrastructure, and frequent power interruptions. On technical capacity, MSEs are characterized by low levels of innovation, lack of training and apprenticeship programme for artisans, fragmentation due to multiplicity of players who offer training and capacity building, and lack of monitoring and evaluation of training programmes. With the market environment, MSEs face inadequate market for their local products; stiff competition among themselves; and unfair trade practises, which manifest through contract enforcement, counterfeiting, dumping (substandard goods) and misrepresentation (through weight, price, ingredient). MSEs also face bottlenecks related to insecurity; multiple licences and permits; numerous procedures for obtaining licenses; and shortage of raw materials.

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

Figure 5.17 presents the effects of COVID-19 on household non-farm and farm businesses in Nandi County. 100 per cent of the respondents report a decrease in their business activities due to the pandemic. This means that all respondents have had a decrease in their income due to COVID-19. This is an indicator that COVID-19 is already having a negative toll on 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**

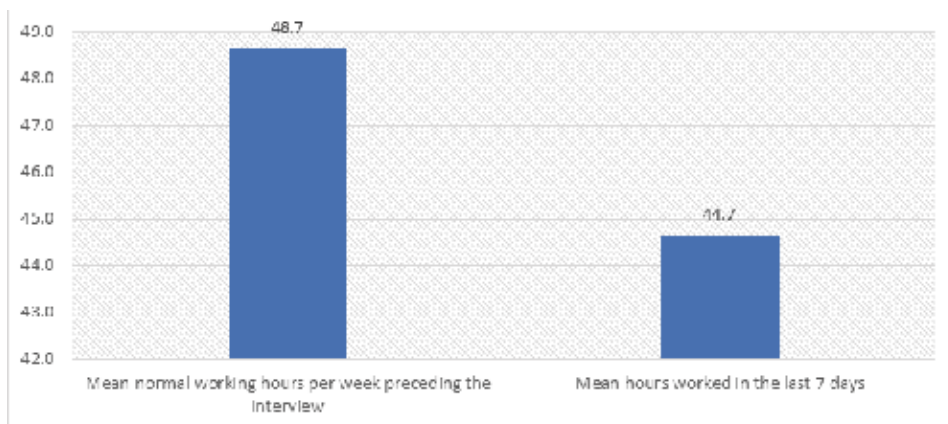


Source: KNBS, COVID-19 Survey 2020

### Labour dynamics

During the period considered in KNBS COVID-19 Survey 2020, respondents reported a decrease of 4 hours in the mean working hours for household non-farm and farm businesses in Nandi County, which implies a deterioration in economic activities between the interview periods (Figure 5.18). This could be as a result of adverse effects on agricultural, service and manufacturing activities considering these sectors considerably form the mainstay of the county.

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



Source: May 2020 KNBS COVID-19 survey

The survey also indicates that the wholesale and retail trade sector lost 8.8 hours in usual and actual hours worked in a week. Equally, the manufacturing sector lost 6.1 hours, implying loss of productivity, output and employment.

### Key Messages:

- (i) The key sectors that drive the economy of Nandi County include: agriculture, services, and manufacturing. Therefore, support should be targeted to these sectors to ensure re-engineering of the county economy.
- (ii) The key constraints affecting the manufacturing sector in the county include: lack of markets, power interruption, poor security, and lack of skilled manpower. There is need to provide support to address these constraints among the manufacturing establishments and especially the ones that employ a large number of people, and those that provide essential goods and services.
- (iii) The COVID-19 presented opportunities that could be harnessed, such as development and support of innovations to address the pandemic. These include production of essential goods such as masks, Personal Protective Equipment (PPEs), and sanitizers, disinfectants, canned foods, immunity boosting products, hospital beds and ventilators. As the pandemic subsides, a strategy is required for smooth transition.
- (iv) Manufacturing establishments must also adopt to cope with the new guidelines that could include rearranging floor plans to allow for social distancing.
- (v) Training and capacity building are important in assisting MSMEs to surmount the shocks faced during the pandemic but also allow for re-

emergence.

- (vi) In terms of re-engineering, there is need to consider establishing support measures to re-vitalize and re-open businesses that collapsed during the crisis within the county.

## **5.2 Opportunities with COVID-19 in Industrial Recovery and Growth**

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

- (i) COVID-19 has increased demand for locally produced goods, which is an opportunity for industry and MSMEs development and generation of jobs for the youth.
- (ii) Agro-processing for value addition with important areas of focus include maize, tea, horticulture, textiles, dairy and leather production and processing.
- (iii) The textile and wearing apparel sectors can be enhanced to provide Personal Protective Equipment (PPEs) for use within the county and potentially for the domestic and export market.

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

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

- (i) There has been an increased wave of innovations during the pandemic. Examples include production.
- (ii) There is a decrease in trade activities in the county due to restrictions on movements due to fear of attending physical markets, where there is fear of contracting the disease.
- (iii) Businesses are faced with challenges of increased costs resulting from the need to comply with new protocols in form of provision of handwashing and sanitization points, wearing of masks even for workers, rearrangement of floor plans for social distancing especially for manufacturers and awareness creation.

### **5.3 Emerging Issues**

- (i) There has been reduced income from traders, manufacturers and MSMEs and a corresponding decrease in taxes collected from them. This will affect implementation of Nandi County's planned activities due to reduced projected revenues.



- (ii) Review all the ongoing interventions by the county and the National Government to assess their effectiveness and especially regarding trade, manufacturing and MSMEs.
- (iii) There is need for legislative amendments to ensure the Buy Kenya Build Kenya initiative is implemented at the county.

#### **5.4 Recommendations**

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

- (i) 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, 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 businesses and traders through affordable credit, waiver of some county taxes, cess, and other charges.
- (ii) Require businesses to adopt to the new pandemic guidelines requiring rearranging of floor plans to allow for social distancing.
- (iii) Create partnerships with other counties to enhance markets for the county's produce and sustainability.
- (iv) Exploit the opportunity created by COVID-19, which 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.
- (v) Prioritize completion of the industrial park being set up at Chemase in partnership with EPZA.

## 6. Infrastructure

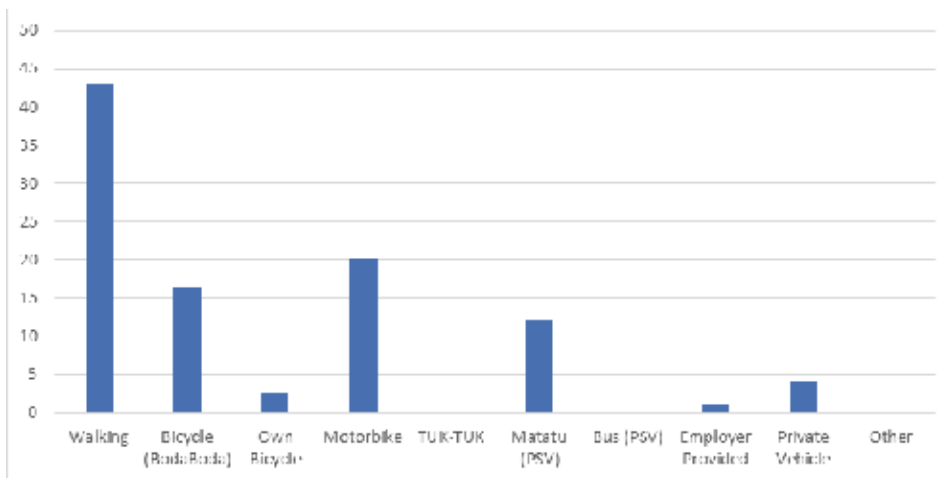
### 6.1 Transport Sector

The county enforced the Ministry of Health guidelines of ensuring social distancing is observed by transporters. In response to the containment measures, public transport owners (i.e., matatu and bus owners) wrote letters to the county requesting for fee waivers. The county responded by granting 30 per cent waivers on monthly stickers for 101,433-seater matatus. The county issued a strong advisory to transporters, warning them against doubling their fares and provided a maximum fare threshold of Ksh 150 per passenger where bus fare was Ksh 100. The matatu operators were warned against hiking fares by more than 50 per cent of the original price. However, because of reduced passengers owing to social distancing measures, several transporters opted to park their vehicles because the business did not make economic sense. The county designated new picking and dropping points for public transporters. They have also provided sanitation booths at the bus stations. The County Government has banned the use of Probox vehicles that tend to be overloaded.

#### 6.1.1 Characteristics of the sector

Majority of households own a motorcycle (11.1%) and a bicycle (10.7%). Car ownership is at 4.4 per cent (KNBS, 2019). The main means of transport used in the county is walking at 43.07 per cent, motorbike at 20.24 per cent, bicycle (boda boda) 16.47 per cent and private car at 4.29 per cent (Figure 6.1) while 93.97 per cent of the population had not changed the main means of transport (KNBS, 2020b). On average, residents travel 1.91 kilometers to their workplace at an average cost of Ksh 49.61. To commute to school, residents spend on average Ksh 540 (KIHBS, 2015/16).

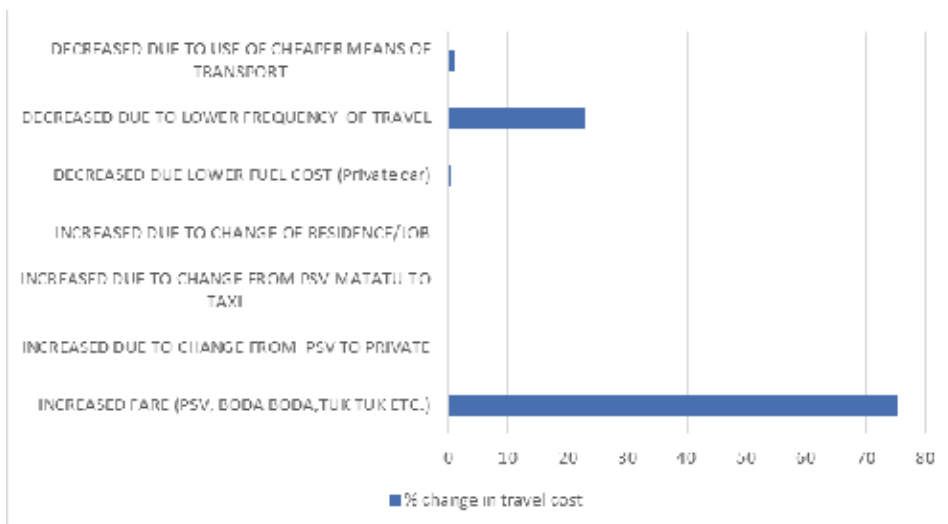
**Figure 6.1: Main means of transport**



Source: KNBS COVID-19 Impact Survey 2020

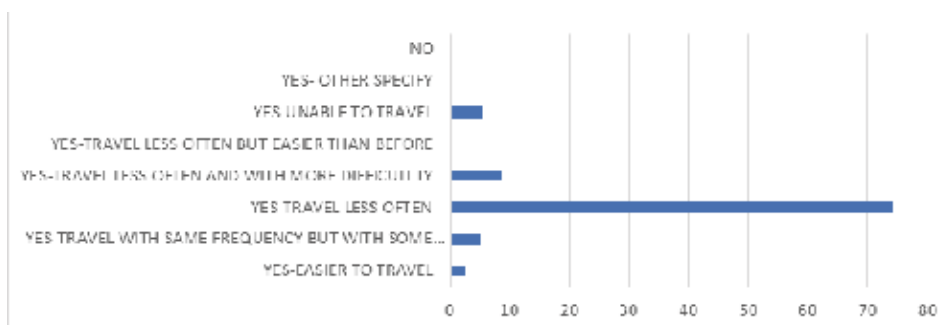
The KNBS COVID-19 Impact Survey 2020 revealed that 73.24 per cent of the population reported a change in the cost of travel/commute (Figure 6.2). The expenditure on transport increased by 36.5 per cent from Ksh 63 before February 2020 to Ksh 86 in May 2020 for a one-way trip. The main change (75.37%) in transport cost was attributed to increased fares for PSV, boda boda and Tuk Tuk.

**Figure 6.2: Change in cost of main means of transport**



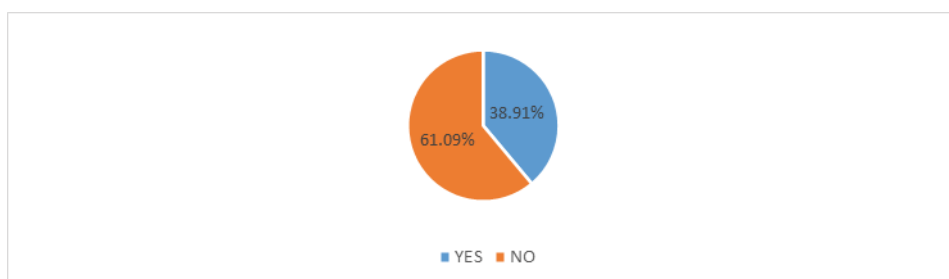
Source: KNBS COVID-19 Impact Survey 2020-wave 2

Residents had changed their travel patterns with 74.4 per cent of the population traveling less often and 5.35 per cent were unable to travel (Figure 6.3).

**Figure 6.3: Change in travel patterns**

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

The pandemic has affected delivery of goods and services for 39 per cent of households.

**Figure 6.4: Proportion of residents whose service delivery has been affected**

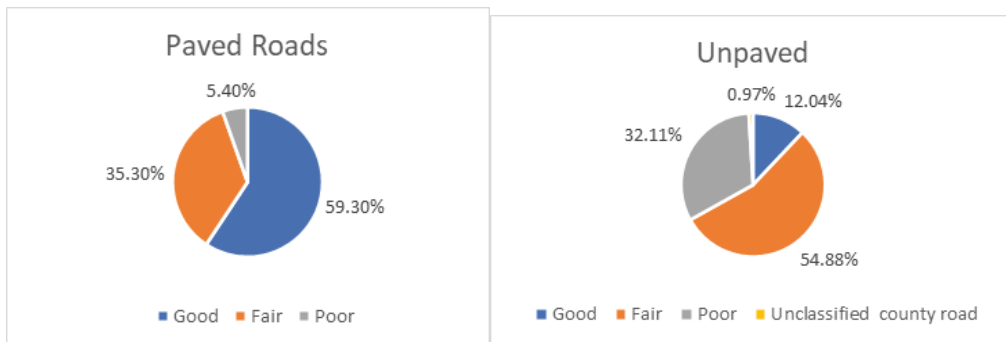
Source: May 2020 KNBS COVID\_19 survey

The county was allocated Ksh 202,600,435 from the Road Maintenance Levy Fund towards road maintenance in 2017/18 (OCOB, 2019).

### Road network

The county has a total of 3,354.42 km of classified road network. The paved county road network covers 30.53 km, while the paved national road covers 258 km. Out of the total paved road network, 59.3 per cent is in good condition, 35.3 per cent in fair condition and 5.4 per cent in poor condition. The unpaved road network in the county covers 1,935.97 km (county roads) and 537.64 km (national roads); of this, 12.04 per cent is in good condition, 54.88 per cent fair and 32.11 per cent in poor condition as depicted in Figure 6.5 (KRB, 2019).

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



Source: KRB (2019)

The unclassified road network in the county covers 850 km, with 586 km of narrow roads; that is, road with a reserve of between 4-9 meters, while there is a total of 263 km of new roads. The Rural Access Index (RAI) measures the proportion of the rural population who live within 2 km of an all-season road.<sup>6</sup> The county has a RAI of 90 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 regarding sectors that rely on accessibility such as agriculture, trade and overall development.

### 6.1.2 Opportunities with COVID-19 in the transport sector

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

The Roads 10,000 programme being implemented nationally under roads sub-sector actors and specifically the Low Volume Sealed Roads (LVSR) approach<sup>9</sup> offers a strategic and cost-effective approach to improve rural accessibility in the county.

Residents predominantly rely on matatu PSV transport and walking; this is an opportunity during the pandemic period as this mode reduces the risk of infections that would arise from use of motorized public transport<sup>10</sup>.

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

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

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%20per%20cent202000%20per%20cent20strategic%20per%20plan.pdf).

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

10 Non-Motorized Transport strategy <https://www.weforum.org/agenda/2020/05/cities-support-people-walking-and-cycling-work/>.

### 6.1.3 Emerging Issues

- (i) Poor road conditions for unpaved network.
- (ii) Reliance on PSV transport requires enforcement of COVID-19 mitigation measures.

### 6.1.4 Recommendations

- (i) Identify county significant infrastructure projects for implementation under a stimulus package to support economic recovery from the effects of the pandemic.
- (ii) Apply labour based and local resource-based approaches for road development and maintenance, where technically and economically feasible, in line with the Roads 2000 National Policy<sup>11</sup>.
- (iii) Improve and expand infrastructure for Non-Motorized Transport (NMT) in urban areas and along roads with heavy high-speed traffic to promote sustainable mobility options and enhance road safety for all road users. This is in line with the Integrated National Transport Policy 2009 and the Sustainable Development Goals.<sup>12</sup>
- (iv) Focus on increasing the share of unpaved roads in good and fair condition to above 62 per cent, which is the national average. For the unpaved road network, focus on adopting the Low Volume Sealed Roads (LVSR) technology for greater network coverage cost effectively.
- (v) Adopt climate smart road engineering designs to safeguard road and bridge infrastructure from floods and to harvest storm water for irrigation and productive use.

## 6.2 Information and Communication Technology

The county is relatively rural and thus not well equipped with ICT infrastructure. Previously, county government members were forced to hold critical meetings with stakeholders in Eldoret due to poor network access across sub-counties. Since the pandemic began, the county has developed its ICT framework<sup>13</sup> to include a robust call centre for educational, health and agricultural purposes. The county has capitalized on the ICT framework to conduct contact tracing. The county has enhanced its ICT framework in Kapsabet to promote virtual learning. There is a Hospital Management Information Centre at Kapsabet Referral Hospital. The information system will collect various critical data on a patient's medical history, demographics, location, etc. The management system will be connected to health facilities within sub-counties to encourage sharing of information across

11 Roads 2000 programme <http://krb.go.ke/our-downloads/roadsper cent20200oper cent20strategieper cent20plan.pdf>.

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

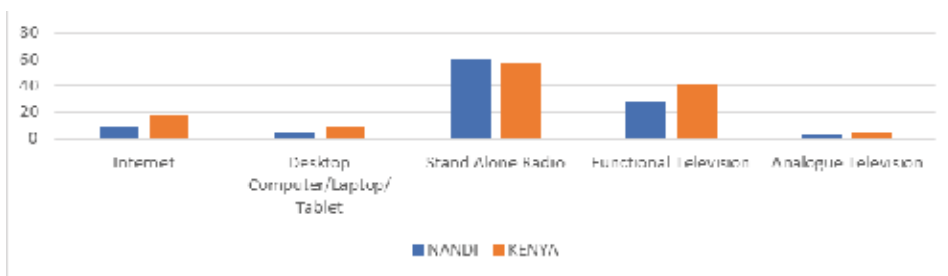
13 Some counties have visited Nandi to understand and benchmark their robust ICT framework.

health centres. Within the Public Private Partnership framework, the county has partnered with Safaricom to roll out a Digicow application. The application will help farmers input daily records of their produce.

### 6.2.1 Characteristics of the sector

The analysis of the 2019 KPHC reveals that only 8.8 per cent of the conventional households in the county ‘own’ Internet, with 3.6 per cent owning a desktop, computer laptop or tablet. Internet access, ICT device ownership and TV ownership is particularly critical not only for access of COVID-19 information, and supporting remote learning by the pupils, and remote working, Figure 6.6.

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

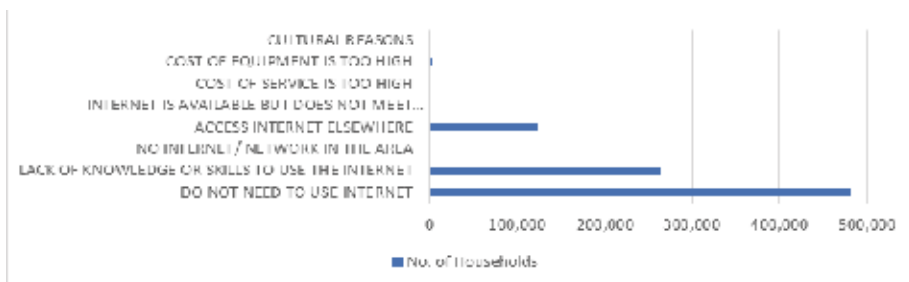


Source: KNBS (2019), 2019 Kenya Population and Housing Census

Online shopping is not prevalent in the county; only 2.0 per cent of the conventional households searched and bought goods/services online. There exists gender disparity in online shopping with more men (2.5%) than women (1.6%) undertaking online shopping.

The perception 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 the county do not have Internet connection (KHIBS). Other key factors include lack of Internet/network in the area, and high cost of service and equipment (Figure 6.7).

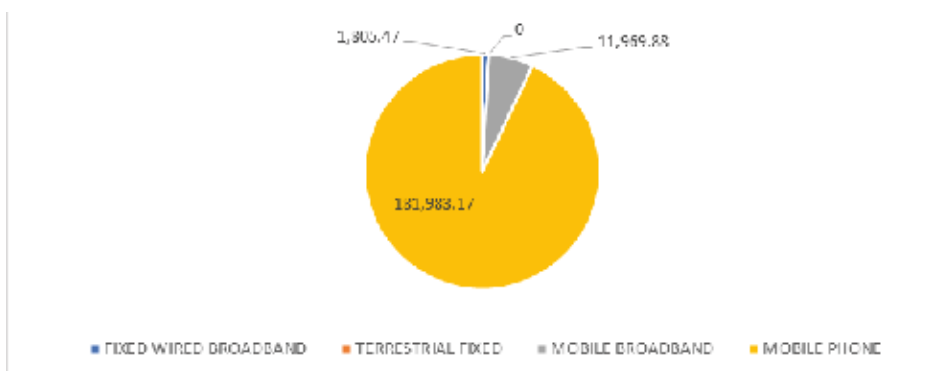
**Figure 6.7: Reasons for lack of Internet connection**



Source: KHIBS 2015/2016

Approximately 96 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 broad band that uses a sim card for connectivity (Figure 6.8).

**Figure 6.8: Type of Internet connection**

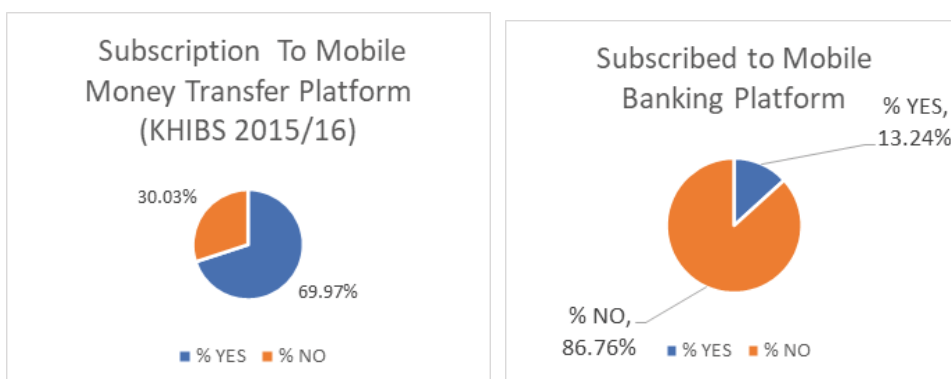


Source: KHIBS 2015/2016

Approximately 42.5 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 69.97 per cent of the people in the county have a mobile money subscription compared with only 13.24 per cent that have a mobile money banking platform subscription (KHIBS 2015/16) (Figure 6.9).

**Figure 6.9: Mobile money transfers subscription and mobile money banking platform**



Source: KNBS (2016), KHIBS 2015/16

The county experiences gender divide in use of Internet and ICT devices. Both Internet and ICT device use is higher among males with 20.0 per cent of the men and 14.2 per cent of the women using Internet, while 7.5 per cent of the men



and 5.8 per cent of the women using Desktop/Laptop/Tablet devices (KPHC, 2019). While the usage is below the national averages, the county recorded a similar gender disparity with the national averages in Internet and ICT usage. The ICT infrastructure and services provide support to various sectors such as health, education, governance and security, among others. ICT is an enabling infrastructure and service across all sectors. However, the sector is facing some constraints, which include:

- (i) Delay in ICT infrastructure such as IFMIS and OSR application- budget reallocated to COVID-19 related issues.
- (ii) Low household ownership and use of ICT assets and services.
- (iii) Low Internet penetration, especially in rural areas.

### **6.2.2 Opportunities with COVID-19 on ICT sector**

- (i) Existing public and private sector initiatives to improve Internet access that can be harnessed towards ubiquitous Internet service.
- (ii) Existing programmes to provide access to ICT assets, for example smartphones and laptops to the local population as a strategy to encourage use of Internet and ICT solutions.
- (iii) Youthful population can be transitioned to the digital space for education and jobs, for example through e-commerce.

### **6.2.3 Emerging issues**

Improved ICT software and communication platforms; for instance meetings are conducted in zoom and WhatsApp group.

### **6.2.4 Recommendations**

- (i) Support programmes in partnership with the private sector that will enable households acquire ICT assets such as smartphones and laptops and increase mobile phone ownership from 42.5 per cent to 100 per cent in line with the global agenda for Universal Access to Mobile Telephony.<sup>14</sup>
- (ii) Harness the power of technology and use innovative solutions to bridge the gender digital divide.
- (iii) Adopt programmes to ensure ubiquitous access to reliable and affordable Internet (Internet everywhere) by applying aerial and satellite-based communication technologies. Negotiate with public primary schools for community access to ICT infrastructure and collaboratively build and

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

equip youth empowerment and ICT centres as captured in the CIDP. The IT personnel in public primary schools can be deployed to support the development of ICT competence and skills among the public.

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

## 7. Housing and Urban Development

Nandi County is fairly rural. The county is working towards attaining municipality status in some areas. There is a plan for affordable housing within the county. Through a PPP initiative with a contractor for a period of between 18 and 24 months, the county intends to construct 300 apartments, 50 bungalows and a level 3 hotel. The houses are mainly reserved for health specialists within the county. Landlords have been courteous and understanding to tenants, hence they have not experienced any challenges.

### 7.1 Characteristics of the Sector

Majority of households are headed by men (74%) compared to women (25%) in the county (KIHBS, 2015/16). There are four urban centres in the county (Figure 7.1). The urban land area covers 41 square kilometers with a population density of 1457 persons per sq.km

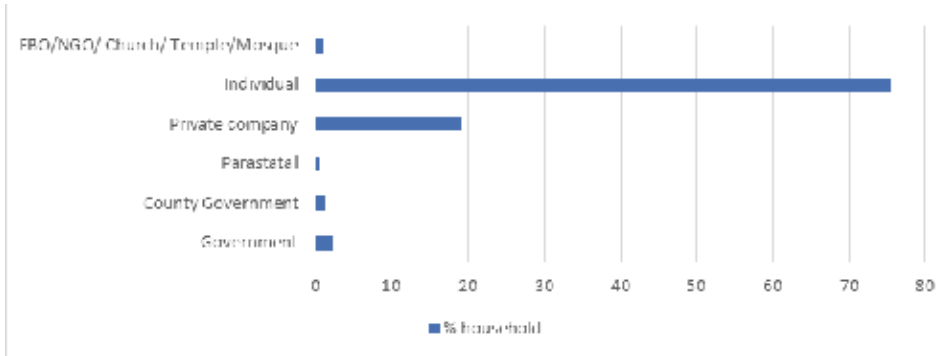
**Table 7.1: Distribution of population by urban centres by gender**

County	Urban Centre	Total Population	Male	Female
Nandi	Kapsabet	41,997	21,000	20,995
Nandi	Nandi Hills	8,032	3,982	4,050
Nandi	Musoriot	4,916	2,364	2,552
Nandi	Baraton	2,043	996	1,047

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

The housing tenure is predominantly owner occupied at 78.6 per cent, with 21.4 per cent of the households under rental tenure. Individuals are the primary providers of rental housing at 75.5 per cent, followed by private companies (19.3%) (Figure 7.1). For those who own homes, 96.3 per cent constructed the houses while 1.5 per cent purchased the houses and 2.2 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), 2019-Kenya Population and Housing Census

### Housing quality

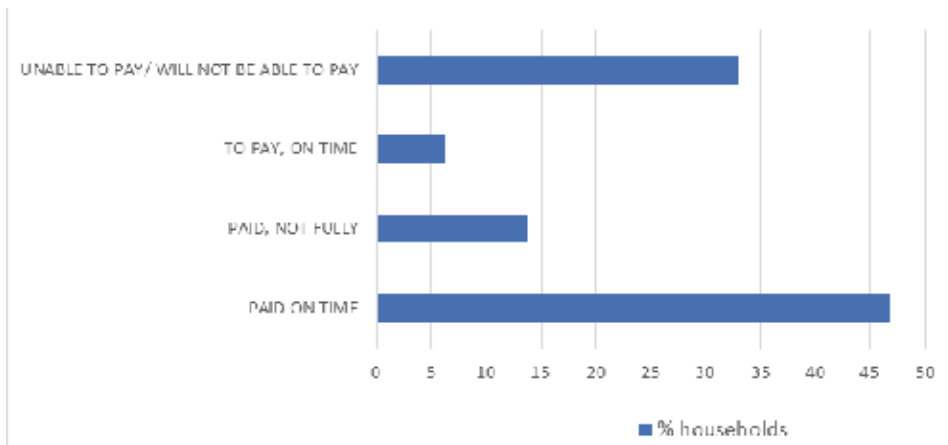
On average, the main dwellings of houses in the county have 2.3 habitable rooms against an average household size of 5.54 persons in a household, translating to approximately 2.4 people per room. According to the UN-Habitat, overcrowding occurs when there are more than three people per room.<sup>15</sup> In terms of housing quality (building material), 41.2 per cent of houses are constructed using finished materials for walls, floor and roofing compared to 58.7 per cent constructed using rudimentary materials (KIHBS, 2015/16). Majority of households (95%) have iron sheets for roofing, mud/cow dung walls (59%) and dung floors (39%) (KNBS, 2019).

### Rent payment

On average, rental households spend approximately Ksh 4,028 on rent with a minimum of Ksh 500 and a maximum of Ksh 20,000 (KNBS, 2020b). The county recorded a rent to income ratio of 10 per cent, which is within the acceptable threshold of 30 per cent (KNBS, 2012/13).

<sup>15</sup> 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 cent20Drooms\) 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 cent20Drooms) per cent20(89).)

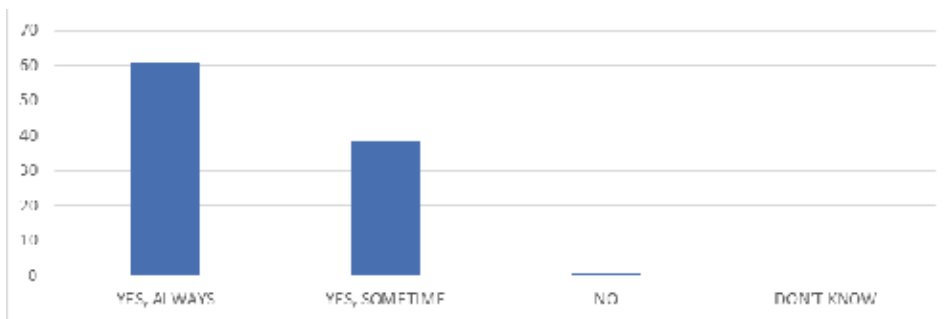
**Figure 7.2: Has your household paid the rent for April 2020 on the agreed date**



Source: May 2020 KNBS COVID-19 survey

With the advent of COVID-19 pandemic, households’ ability to pay rent has been affected, with 32.97 per cent of the population indicating inability to pay rent on the agreed date for April 2020 (Figure 7.2) compared to 46.85 per cent of the population that were able to pay rent on the agreed date and 60.52 per cent who paid rent on agreed date before COVID-19 pandemic (Figure 7.3).

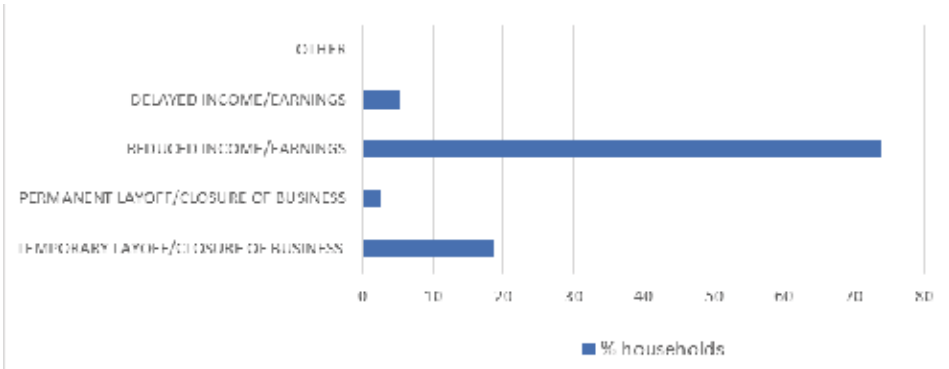
**Figure 7.3: Proportion of residents paying rent per terms of contract**



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 73.72 per cent of the population. The inability to pay rent was attributed to the COVID-19 pandemic by 94.93 per cent of the population (Figure 7.4).

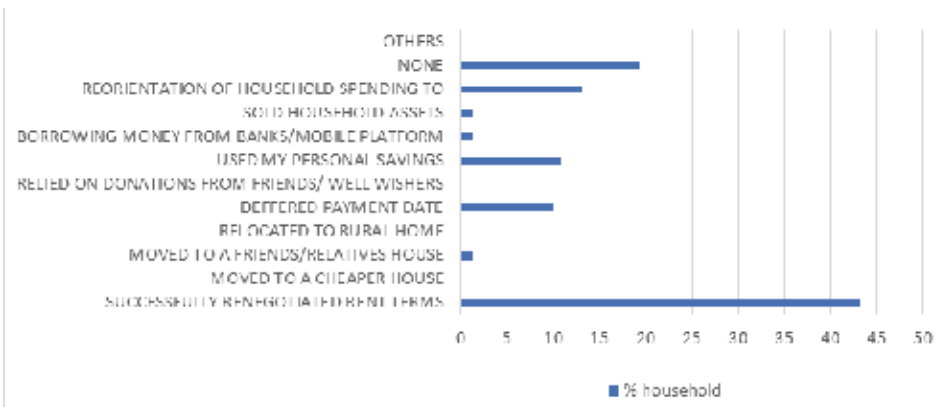
**Figure 7.4: Reasons for not being able to pay rent**



Source: May 2020 KNBS COVID-19 survey

Majority of the households (96.4%) did not receive a waiver or relief on payment of rent from the landlord, with 2.39 per cent reporting a partial waiver and 1.21 per cent deferred payment date. To overcome the effects of Coronavirus on payment on rent, majority 43.27 per cent of households renegotiated rent terms, while 19.4 per cent of households did not take any measures. Approximately 10.77 per cent used personal savings to pay rent (Figure 7.5).

**Figure 7.5: Measures taken by household to mitigate COVID-19 effects on rent**



Source: May 2020 KNBS COVID\_19 survey

Regarding primary energy source for cooking, 93 per cent of households rely on unclean sources of energy for cooking, such as firewood, paraffin and charcoal, which could adversely affect respiratory health of women and children.

## **Constraints facing the urban development sector**

- Household reliance on unclean sources of fuel.
- Housing inadequacy for the home-based isolation and care.

### **7.2 Opportunities with COVID-19 in Urban Development**

- (i) Partnership with National Government and private sector for home improvement (roof, floor and walls) under the “Big Four” agenda.
- (ii) Alternative sources of cooking fuel such as briquettes, clean cooking stoves and LPG under the mwananchi gas programme.

### **7.3 Emerging Issues**

- (i) Nandi County is fairly rural. The county is working towards attaining municipality status in some areas.
- (ii) The county has a plan for affordable housing. Through a PPP initiative with a contractor for a period of between 18 and 24 months, the county intends to construct 300 apartments, 50 bungalows and a level 3 hotel. The houses are mainly reserved for health specialists within the county.
- (iii) Landlords have been courteous and understanding to tenants hence they have not experienced any challenges.

### **7.4 Recommendations**

- (i) Develop and implement an addressing system with complete, correct and unique address data in line with the National Addressing System. To be used during pandemics and disaster surveillance and emergency response.
- (ii) Develop feasible solutions to pandemic and disaster risks response in human settlements by collaborating with insurance and reinsurance institutions.
- (iii) Avail appropriate building technology for use by the public in house construction and improvement in every sub-county that responds to local cultural and environmental circumstances. Fast-track implementation of the affordable housing programme with a focus on improving living conditions and building quality applying finished materials for walls, floors and roofing as planned in the CIDP.
- (iv) Undertake spatial planning of urban areas, and fast-track identification and designation of urban centres for upgrade pursuant to provisions of the Urban Areas and Cities (Amendment) Act, 2019.

- (v) Formulate and seek approval of urban development plans and development control policies to support investment and development of urban areas.
- (vi) Adopt programmes aimed at 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

Nandi County prides in its spectacular and distinguishing landscapes, cool highlands climate and lush green vegetation cover. It has 66 identified tourist sites scattered across the county, but to a large extent have not been fully developed to be able to attract visitors. The main tourism physical attractions include the Nandi Rock and the South Nandi Forest, the latter which requires huge investment in conservation and maintenance to turn it into a tourist attraction with huge benefits to the county. Other attractions include Chepkiit Water Falls on the Kipkaren River; Kingwal Swamp, which is host to the famous Sitatunga, a rare gazelle species; Tindinyo falls along River Yala; and the Keben caves.

Regarding Safari/wildlife tourism, the main National Reserve in Nandi County is the Bonjoge National Reserve in Nandi South Sub-County. There are plans to upgrade its status into a National Park to attract more funds for conservation and reclamation. A variety of wildlife species are found in the Bonjoge Game Reserve, Kingwal swamp and the South and Nandi forests. The main wildlife species found in the Bonjoge Game reserve include baboons, velvet monkeys, gazelles and dik dik. Sitatunga is a rare brown antelope found in the attractive Kingwal wetland and is a rare animal that can be of great attraction to both domestic and international tourists. Further, the county hosts the cerval cat species found across the county and over 247 recorded bird species including the black and white casqued Hornbill, Great comorant, African darter, Hamerkop, sacred ibis, Glosy ibis, Egyptian goose, African Goshawk, Tawny eagle, helmeted Guinea fowl, ross turaco, African wood owl, Speckled mousebird, African Paradise fly catcher and the silver bird mainly found in the Nandi South and Nandi north forests, caves and escarpments.

Other opportunities for tourism development include eco-tourism, which is under-developed and can leverage on the available forest resources; sports tourism, including athletics training camps to leverage on high altitude and conducive climate; cultural and heritage tourism (Koitalel Samoei Museum); and Agro-tourism, which can leverage on the county's 52425 hectares of gazette forests.

Nandi County lacks classified hotels. However, there are 13 hotels that have great potential for classification, including: Kounty Lounge, Nandi Cottages and Nandi Flame hotel, Nandi Bears Club, Tea Planters, Blue Hills, Get Barak Ecolodge, Kapsimotwo gardens, Siret Guest house, North Rift Guest House, Edens springhe, Starlink Hotel, and Jafferus Hotel. Nandi County has a bed capacity of 465 and one travel agency, which is inadequate to meet demand during high peak seasons.

Despite the county being richly endowed with natural resources and raw materials to support tourism, accommodation, and food services accounts for only 0.3 per cent of the total Gross County Product, depicting low prioritization of tourism in income generation in the county. This is asserted by decline in county expenditure on tourism development over the last 5 years (Table 8.1).

**Table 8.1: County expenditure on the tourism, culture and cooperative development sector (Ksh millions)**

2014/15		2015/16		2016/17		2017/18	
Estimates	Actual	Estimates	Actual	Estimates	Actual	Estimates	Actual
195.0	131.7	51.7	42.0	91.2	75.0	75.9	39.4

Source: Nandi County CIDP 2018-2022

The raw materials for tourism in Nandi County include physical attractions, accommodation and cultural and heritage facilities. Some of the tourist products and attraction sites in the county include nature-based tourism, agro-tourism, sports tourism, eco-tourism and cultural tourism.

Prevailing constraints to growth in tourism sector in the county include un-exploited tourism potential; encroachment/destruction of tourist sites (e.g., Kingwaal swamp); poor physical and institutional cultural infrastructure; low capacities of community's/cultural practitioners to harness cultural heritage potential; and inadequate county cultural and heritage policy framework, research, and documentation. In 2020, the sector witnessed cancellation of cultural events and decline in employment and revenues in tourism due to the COVID-19 pandemic.

A total of 1,400 households are currently engaged in fish farming in ponds occupying a total of 47 hectares that produce approximately 220 tons of fish valued at Ksh 77 million. This not only provides employment but also avails fish supplies to the hospitality establishments. In addition, the county has 8 dams and 12 major rivers with high potential for fish farming and fishing activities. These are currently not utilized because they require heavy investment and high capital outlay in terms of boats, gears, infrastructure, and skilled personnel. Once developed, these will benefit the tourism sector through supply of fish to the tourist hotels and providing opportunities for water sports.

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

Tourism product development and marketing to incorporate dimensions of COVID-19 pandemic.

## 8.3 Emerging Issues

- (i) Sanitation as a key component in ensuring business continuity in the

tourism sub-sector.

- (ii) Implementing hygiene measures in cultural and heritage tourism activities.

#### **8.4 Recommendations**

Nandi County is rich in cultural heritage which needs to be developed, promoted and preserved for social and economic gains. Infrastructure such as museums, art and cultural centres, multimedia media and recording studio need to be developed to aid the county in harnessing its cultural heritage. Other strategies to support recovery of tourism in the county include:

- i) Research and documentation on potential of traditional medicine in the county.
- ii) Development of tourism information centres.
- iii) Promote the tourism sector by investing in establishment of the Kamatargui Wildlife Sanctuary for rehabilitation of different types of wildlife species.
- iv) Finalize construction of the proposed art studio to harness and nurture visual and performing art talent among the upcoming artists develop niche tourism products; festival tourism; sports tourism; tourism circuit and map; develop and preserve tangible cultural heritage; establishment of traditional medicine botanical gardens.
- v) Enforce relevant tourism regulations and laws governing tourism: formulate, domesticate and ratify relevant laws, policies and conventions, e.g. on culture and heritage.
- vi) Marketing the county as a tourist destination; organizing cultural events.
- vii) Improving tourism infrastructure by constructing and equipping museums, art and cultural centres, hall of fame, talent enhancement centres, art galleries, historical/cultural sites protection, collection and preservation of artifacts, traditional homesteads.

## 9. Health

### 9.1 Characteristics of the Sector

#### General health characteristics of the county

In 2019/2020, the number of health facilities in the county was 234, which comprised of 223 primary health facilities and 11 hospitals. This was an improvement from a total of 175 health facilities in the previous year, 2018. The number of beds per 10,000 population is 12 against the WHO recommendation of 30 beds per 10000 population.

**Table 9.1: Health provision**

Year	2018	2019/20
<b>Health facility density</b>		
Primary health facilities	170	223
Hospitals	5	11
<i>Number of health facilities</i>	<i>175</i>	<i>234</i>
Health facility density	3.0	3.4
<b>Bed density</b>		
Hospital beds	829	829
No. of beds per 10,000 population	13	12
<b>Human resource density</b>		
Total workforce	1,115	2,210
Human resources for health (technical)	743	1,188
Number per 10,000 population	9.5	13.1

*Source: Ministry of Health (2021)*

The health facilities and personnel serve a growing population of 885,711 people, according to the 2019 census. In 2020, total health workforce was 2,210, representing 13.1 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 Elgeyo Marakwet County**

Type of Health Provider	Percentage Distribution of the Population
Government hospital	20.8
Government health centre	9.5
Government dispensary	34.1
Faith Based (church, mission) hospital/clinic	0.4
Fhok/Fpack Health	0.0
Private hospital/clinic	19.0
Nursing/Maternity home	0.0
Pharmacy/chemist	0.2
Community health worker	0.0
Shop/Kiosk	17.2
Traditional healer	0.6
Faith healer	0.0
Herbalist	0.0
Other	0.0
Number of Individuals ('000)	214

Source: KNBS (2016), KIHBS 2015/2016

Table 9.2 presents the distribution of population reported to have been sick or injured and the type of health provider they visited. Majority of Nandi County residents who reported illness visited government dispensaries, 34.1 per cent followed by those who visited government hospitals at 20.8 per cent. 19.0 per cent of Nandi County residents who reported illness also visited private hospitals and 17.2 per cent visited shops/kiosks for medication.

### 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, 18.6 per cent of the county population has some form of health insurance cover. The National Hospital Insurance Fund (NHIF) is the leading health insurance provider reported by 95.4 per cent of the population. Employer contributory insurance cover was reported by 2.1 per cent of the population. Private contributions to insurance cover were reported by 3.2 per cent of the population.

**Table 9.3: Percentage distribution of Nandi County's population with health insurance cover by type of health insurance provider**

Source of Health Insurance	Percentage Distribution of the Population
Population ('000)	954
Share of population with health insurance (%)	18.6
NHIF	95.4
Private-contributory	3.2
Private-non-contributory	0.5
Employer-contributory	2.1
Employer-non-contributory	0.2
Other	0.7
Number of individuals ('000)	177

Source: KNBS (2016), KIHBS 2015/16

### Place of delivery

In the 2015/16 KIHBS, women in Nandi 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 Nandi County. 38.9 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 is 48, 10.9, and 1.5 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
Hospital	48.0
Health centre	10.9
Clinic/Dispensary	1.5
Maternity home	0.0
At home	38.9
Other	0.0
Not stated	0.7
Number of Individuals ('000)	122

Source: KNBS (2016), KIHBS 2015/16

## Immunization for children

The 2015/16 KIHBS collected data on measles immunization for children below 5 years at; 9 months (Measles I) and at 18 months (Measles II). Information was collected from vaccination cards where they were available while mother's recall was used where the card was not available. Tables 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). In Nandi County, 52.3 per cent of the children aged 12-23 months were fully immunized against measles at 9 months while 3.8 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	52.3
	Yes, not seen	45.0
	No	2.1
	Not stated	0.7
Measles Vaccination	Measles I (at 9 months card)	41.6
	Measles II (at 18 months card)	3.8
	Measles II (mother/ guardian memory)	43.3
	Either (card or memory)	84.9
Number of Individuals ('000)		122

Source: KNBS (2016), KIHBS 2015/16

## Health outputs

The county had improved its health status in some of the key health indicators while some were still below the national averages. The most affected groups during COVID-19 pandemic were the infants, young children, mothers, adults and elderly. For instance, the 96.3 per cent of children were fully immunized, which was higher than the expected national target of 90 per cent. 46.8 per cent of the mothers had accessed skilled delivery in 2018 while 53.1 per cent of children were born at home. Despite availability of free maternal services in all county government facilities, health performance indicators had not improved that much. This could be attributed to weak referral systems. There were also few active community units in the county.

The WHO recommends routine immunization against tuberculosis, diphtheria, pertussis, tetanus, polio, measles, hepatitis B, haemophilus influenza type b, pneumonia or meningitis, rotavirus, and rubella. 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 society. Infant mortality stood at 39 per cent, and under-five mortality rate was at 52 per cent for the county, relatively higher than the national averages.

On maternal health care (maternal deaths, number of mothers delivering in hospitals, ante-natal and post-natal care), World Health Organization (WHO) recommends a minimum of four antenatal visits. In Nandi County, 55.7 per cent of expectant mothers attended first antenatal visits and only 24.3 per cent completed fourth ANC visit in 2016. In the same reporting period, 46.8 per cent of the expectant mothers were delivered by skilled personnel in the health facilities.

**Table 9.6: Health sector performance**

Key Health Indicators	County Estimates
<b>Maternal and Child Services</b>	
Skilled delivery (%)	46.8
Children born at home	53.1
Fully immunized child	96.3
<b>Child Mortality</b>	
Infant mortality (* /1000)	39
Under-5 mortality (* /1000)	52
Neo-natal mortality (* /1000)	0
<b>Nutrition Status</b>	
Stunted children (%)	29.9
Wasted children (%)	3.9
Underweight children (%)	11.1
<b>HIV (%)</b>	
HIV adult prevalence (%)	2
Children with HIV (No.)	1035
ART adult coverage (%)	66
ART children coverage (%)	64

Source: KDHS 2014, KIHBS 2015/16

HIV and AIDS prevalence rate in Nandi County is lower than the national prevalence at 2.4 per cent (Kenya HIV Estimates 2015). Nandi County contributed



to 0.7 per cent of total number of people living with HIV in Kenya and is ranked the 32nd nationally. Stigma and discrimination were the major challenges facing HIV/AIDS care and management.

Respiratory infections followed by malaria are the leading causes of morbidity and mortality in Nandi County. This is due to poor prevention practices, poor feeding, poor hygiene practices, inadequate health seeking behaviour among other predisposing factors. The number of cases of non-communicable diseases (hypertension, diabetes and cancers) is also on the rise. To reduce the burden of communicable and non-communicable diseases, the county could improve service delivery through elaborate preventive health activities, screening and establishment of special clinics and rehabilitative centres.

Protein and energy malnutrition was still a menace in Nandi County. The most affected groups were the infants, young children, mothers, adults and the elderly. All forms of malnutrition (chronic, moderate and severe) exist. The proportion of children under 5 years who are stunting stood at 29.9 per cent compared to 26 per cent at the national level. The proportion of children who are underweight stands at 11 percent while wasting rate is at 4 per cent. The obesity rate among the population is rising and currently stands at 3.7 per cent. The proportion of children under 1 year who were exclusively breastfed was at 54 per cent. 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.

The objective of immunization is to ensure that children are protected against childhood diseases such as tuberculosis, polio, tetanus, hepatitis B and hemophilia, influenza and measles. Immunization is carried out among children less than 5 years old. According to the District Health Information System (DHIS2) 2016 report, 96.3 per cent of children were fully immunized beyond the expected target of 80 percent. Sensitization on immunization will have to be upscaled to achieve this objective.

### **Effects of COVID-19**

Due to the stigma of COVID-19, the health-seeking behaviour of the county citizens was affected. There has been significant decline in the number of pregnant women attending maternal child health clinic, thereby increasing their risk of early and late pregnancy complications. Also, there has been acute decline in the number of children going for immunization services; therefore, this could lead to increased susceptibility of these children to infections and nutritional imbalances.

COVID-19 guidelines and preventive measures were negatively impacted on the young and pregnant women because of the regulation of access to sexual and reproductive health facilities and services in a bid to reduce the risk of infections. COVID-19 had adversely affected women more so in the rural set ups. The challenge to protect oneself due to limited information was high, coupled with limited access to social services. The county was therefore involved in community education on reproductive health services to women and girls. Through community

response persons, the county has engaged young people and members of various communities within the county on open discussions on matters sexuality and reproductive health when school going girls are at home.

The Nandi County government partnered with the Ford Foundation through the Council of Governors where training aimed at strengthening capacity has been offered to 25 women, youths and PWDs to improve their participation in the budgeting process and oversight within the county.

It had also become difficult to conduct public health community interventions, notably community health promotion campaigns, door to door health campaigns and immunization campaigns. There is therefore potential for an increased threat of outbreaks of other diseases such as cholera, air-borne diseases and malaria and immunizable diseases such as polio. Access to other services such as patient support centres (PSC) for People Living with HIV (PLHIV) is also at risk as people shy away from health facilities; causing another risk of likely surge in new HIV infections and reduced viral suppression.

Just like other counties, the county government had been adversely affected by COVID-19 pandemic. Normal operations were affected due to the guidelines for social distancing. Hospitals were deserted, and the number of patients visiting hospitals or seeking medical services has reduced significantly due to fear of contracting COVID-19, thus significantly reducing the health revenue stream. To address this, the county negotiated with different departments to delay implementation of some of the projects that are likely to exhaust the budget to 2020/21 financial year, and to reallocate the budgets to matters health.

The county government hired more health workers during the pandemic because of interventions to meet the counties commitment to the Universal Health Coverage. With support of the National Government and counties own initiatives, training and awareness has been undertaken to build capacity of health workers and enhance the mitigation measures required during the pandemic period. Tools of trade such as protective gears and masks were also provided.

The revenue stream for the county was affected during the pandemic period. Apart from re-structuring the programmes to enable finances to be channeled for COVID-19, the county is also relying on the government for financial support to cushion the already strained county budget. The National Government had earmarked special funds for counties to upgrade the isolation facilities to have 300 beds, which the county has managed 312 isolation beds. The county is also creating awareness to allay fears and allow people with other ailments to seek medical attention in hospitals. The guidelines affected trade, which is a source of revenue, but operation of open-air markets has been encouraged within the set rules, and this is expected to revamp the revenue though it might take time.

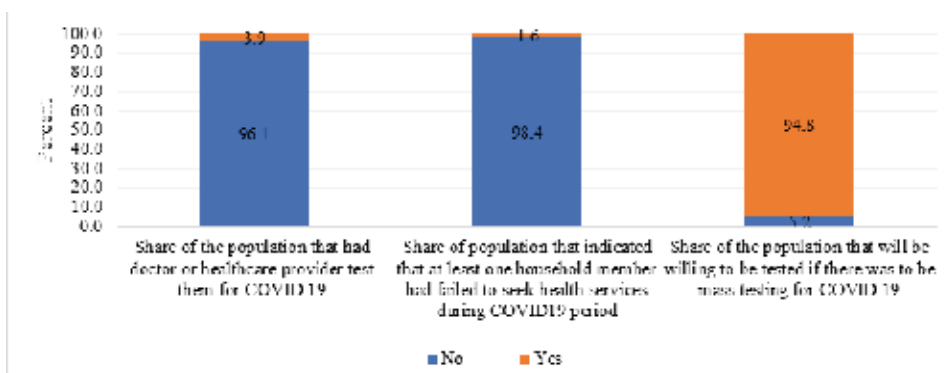
The county had prepared two major isolation centres within sub-counties, in Nandi Hills Sub-County Hospital and Mosoriot Sub-County Hospital. The county did not use the main referral hospital as an isolation centre. Other health facilities have also been designated as isolation centres in line with the government directive that all counties should have 300 beds. Most of the unused health centres are currently

under repair. The county has so far equipped 72 health centres. This means that the county will surpass the 300-bed capacity to attain 400- bed capacity.

Out of the Ksh 159 million allocated for the health sector thus far, Ksh 24 million has been used on health infrastructure and Ksh 40 million for the purchase of health equipment. Specifically, the county had purchased 7 ventilators, 10 ICU beds, procured isolation beds, and converted the outpatient wing to inpatient by rewiring and partitioning the different wings. The entire population and/or residents enjoy a 5km radius proximity to health care within the county. The major challenge faced by local hospitals is provision of drugs by KEMSA to the county. The county has conducted capacity building for frontline workers and purchased PPEs for them. The county only trained selected health workers due to expenses linked to training. Consequently, they are struggling to pay allowances after the training. Through partnerships, the county has received donation of ICU beds and foodstuff as support towards the pandemic.

According to the COVID-19 survey June 2020, the share of the population that had doctor or healthcare provider testing or confirming to them the status regarding COVID-19 was estimated at 4 per cent in 2020 (KNBS, June 2020 COVID-19 survey). Further, only 1.6 per cent of the population indicated that at least one household member had failed to seek health services and 95 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: May 2020 KNBS COVID-19 survey

The county has prioritized gender issues. In collaboration with the Ford Foundation through the Council of Governors, the county has put in place activities on gender responsive budgeting, advocacy, inclusion and social accountability. This programme has benefitted 165 women, youth and people living with disabilities (PWDs). Through a Lelchego’s Dairy Cooperative Society, women have been involved in mitigation against COVID-19. The women members of the cooperative have had educative forums where they have engaged children and

youth on education on symptoms of COVID-19 and the essence of proper hand-washing techniques, significance of social distancing and to further make them understand why they are currently not allowed in school. The women have also engaged themselves in disseminating information from the Ministry of Health. They are also conducting COVID-19 -specific-financial guidance to borrowers to their affiliated savings and credit cooperatives (SACCOs).

There are still constraints in terms of learning to cope with the pandemic, but the guidance from the National Government has been very helpful in enhancing an integrated model of dealing with COVID-19 cases. The testing kits was a constraint at the beginning, but the county has embarked on mass testing, which began with a focus to the business community. The initiative commenced at the Kenya Medical Training College, Mosoriot in Chesumei Sub-County, Kapsabet County Referral Hospital in Emgwen and at Nandi Hills County Hospital in Nandi Hills Sub-County. These interventions have seen the testing of over 400 hotel workers.

Many people due to fear of COVID-19 have avoided going to hospital, and this has had direct implication on generation of revenue by the health department. The fear might also lead to emergence of diseases that had been controlled such as those that could have been controlled through immunization. Medical personnel shortage is another challenge that is likely to derail delivery of health services. Lack of adequate ICU beds and PPEs are also hindrances to the fight against COVID-19 in the county. High poverty levels have also divided the county's attention as it focuses on feeding the residents and fighting COVID-19.

The health sector is linked to almost all sectors within the county. The agriculture sector is very key in sustaining health condition of the people through food security and many people depend on the agriculture for their livelihoods being the main economic activity. The transport sector is also key and the awareness through the sector leaders has been significant in trying to execute the guidelines in place to reduce the rate of virus spread. Trade and industry have enabled the production of affordable mask to many people through collaboration with the county. Rivatex Textiles company has been producing masks across the regional block.

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

The COVID-19 pandemic has provided an opportunity for serious enhancement of the health sector not only in Nandi County but the entire country. This has been a period of serious medicare preparedness. The TVETs and various SMEs had opportunities to produce protective gears in bulk, thus improving their capital. Rivatex, for instance, had an opportunity to add more human resource to produce masks for the region.

There is enhanced collaboration within the NOREB regional block counties, which has resulted into training of health officers and all the frontline staff. This collaboration has also seen enhanced intercounty screening and testing centralized at the Moi Teaching and Referral Hospital. The pandemic has also led to utilization of local capacity in production of masks and PPEs. This has promoted growth of local industries, hence creating employment.

### **9.3 Emerging Issues on the Health Sector**

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

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

### **9.4 Recommendation**

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

- (i) The counties within the regional economic block need to work together to strengthen the execution of the set guidelines. An industry such as Rivatex needs support to enhance the regions' economy in textiles production. All sectors need to work together to ensure that COVID-19 guidelines set by the National Government and counties are adhered to.
- (ii) There is need to create awareness on availability and importance of free maternity services and address other constraints to access maternal health services in the county to address fear of contracting COVID-19 in the event of visiting a health facility.
- (iii) The county needs to consistently allocate resources towards nutrition specific and sensitive programmes in the various sectors by establishing specific budget lines for nutrition support initiatives.
- (iv) The county needs to employ additional staff to bridge the existing gaps in human resource for health facilities.
- (v) To improve the average distance to a health facility from the current 7 km to less than 5 km, the county government will construct additional health facilities.
- (vi) The county will address the mental health needs including those of the health workforce, mental illnesses from depression, especially in response to shutdowns and economic downturns.
- (vii) Promote and support public and community health, including the installation of hand washing facilities in homes and institutions such as schools, workplaces and health care facilities within Nandi County.

## **Key Highlights**

About 18.6 per cent of the county population has some form of health insurance cover. The National Hospital Insurance Fund (NHIF) is the leading health insurance provider reported by 95.4 per cent of the population. Employer contributory insurance cover was reported by 2.1 per cent of the population. Private contributions to insurance cover were reported by 3.2 per cent of the population.

Most (34.1%) of Nandi County residents who reported illnesses visited government dispensaries, followed by those who visited government hospitals at 20.8 per cent. 19.0 per cent of Nandi County residents who reported illnesses also visited private hospitals and 17.2 per cent visited shops/kiosks for medication.

In addition, 52 per cent of children are fully immunized, which is below the expected national target of 90 per cent. 69 per cent of the mothers had accessed skilled delivery in 2018 while 42 per cent of children are still being born at home.

## 10. Education and Training

### 10.1 General Characteristics of the Sector

#### General education provision in the county

Nandi County has a total of 2,462 pre-primary centres with 79 per cent of them being publicly owned. The county has 832 primary schools of which 78 per cent are publicly owned. Infrastructure is in place to support water and sanitation efforts in learning institutions by the county. 100 per cent of public primary schools in Nandi County have been installed with ICT infrastructure and devices under the Digital Literacy Programme (DLP) (ICT Authority, 2019). The infrastructure includes learner digital devices (LDD), teacher digital devices (TDD) and the Digital Content Server and Wireless Router (DCSWR). Mosop Sub-County has the highest number of privately owned ECD schools (85) followed by Emgwen (68). The total enrolment in ECD is 42,470, which represents a Gross Enrolment Rate (GER) of 32 per cent. The ECDE sub-sector employs a total of 2,035 teachers with 96 per cent being female. The teacher-pupil ratio is 1:29, and dropout rate is 9.84 per cent. Owing to the high number of pupils ready to join pre-primary, the County Government of Nandi constructed 60 ECDE centres in the 2018/2019 financial year.

Nandi County has 19 colleges and plans are underway to establish Koitalel University College. There is one private university in the county, named: University of Eastern Africa, Baraton. Other university colleges operating within the county are Kisii University and Masinde Muliro University of Science and Technology. Nandi County has 15 registered polytechnics/Vocational Training Centres offering Vocational Education and Training (VET). Amid the COVID-19 pandemic, the county reopened two major TVETs namely, Cheptarit Vocational Training Centre and Emsos Technical Training Institute to facilitate mass production of facemasks by PWDs.

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

Gross Attendance Ratio (GAR) is the total number of persons attending school regardless of their age, expressed as a percentage of the official school age population for a specific level of education. Table 10.1 presents the GAR by sex and schooling level for Nandi County. GAR for pre-primary school was 117.6 per cent while that of primary school and secondary school was 121.1 and 64.0 per cent, respectively. The GAR for pre-primary school was higher for males, 123.8 per cent, compared to that for females, 112.1 per cent. The GAR for primary school was higher for males, 129.5 per cent, compared to that for females, 112.5 per cent.

The GAR for secondary school was higher for females, 83.7 per cent, compared to that for males, 45.2 per cent.

Net Attendance Ratio (NAR) is the total number of persons in the official school age group attending a specific level to the total population in that age group. Table 10.1 shows that the total NAR for pre-primary, primary and secondary school was 79.6, 84.5 and 26.9 per cent, respectively.

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

Education Level	Gender	Gross Attendance Ratio	Net Attendance Ratio
Pre-Primary School	Male	123.8	82.9
	Female	112.1	76.9
	Total	117.6	79.6
Primary School	Male	129.5	84.8
	Female	112.5	84.3
	Total	121.1	84.5
Secondary School	Male	45.2	14.6
	Female	83.7	39.7
	Total	64.0	26.9

Source: KNBS (2016), KIHBS 2015/2016

### Basic education gross and net enrolment rate

The pre-primary gross enrolment rate in the county was 101.3 per cent in 2019 while the net enrolment rate was 58.5 per cent. The Gross Primary and Secondary enrolment rates stood at 115.5 per cent and 82.5 per cent, respectively, in 2019 while the Net enrolment rates (NER) were 83.1 per cent and 39.7 per cent for primary school and secondary school, respectively, during the same period.

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

<b>Pre-primary</b>	2019
Gross Enrollment Rate (GER) (%)	101.3
Net Enrollment Rate (NER) (%)	58.5
Gender Parity Index	0.96
<b>Primary</b>	
Gross Enrollment Rate (GER)(%)	115.5



Net Enrollment Rate (NER) (%)	83.1
Gender Parity Index	0.96
<b>Secondary</b>	
Gross Enrollment Rate (GER) (%)	82.5
Net Enrollment Rate (NER) (%)	39.7
Gender Parity Index	1.10

Source: KNBS (2022)

## Literacy

The analysis of literacy is based on respondents' self-assessment as no reading and writing tests were administered during the data collection. Further, it was assumed that anybody with secondary level of schooling and above could read and write. The percentage distribution of population aged 15 years and above by ability to read and write is presented in Table 10.3. The proportion of literate population in the county is 91.9 per cent, with the male population more literate (94.2%) compared to their female counterparts (89.7%).

**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	91.9
	Illiterate	7.5
	Not Stated	0.6
	<b>Number of Individuals ('000)</b>	565
Male	Literate	94.2
	Illiterate	5.6
	Not Stated	0.2
	<b>Number of Individuals ('000)</b>	274
Female	Literate	89.7
	Illiterate	9.3
	Not Stated	1
	<b>Number of Individuals ('000)</b>	291

Source: KNBS (2016), KIHBS 2015/16

The Early Childhood Development Education (ECDE) sector has not received adequate attention since the promulgation of the Kenya Constitution 2010, which assigned County governments the responsibility of Early Childhood Development Education. This therefore translates to poor and insufficient infrastructure, which cannot fully support learning activities. Strategies to address this challenge have been established, and they include employment of ECD teachers, improvement of ECD infrastructure, provision of desks and other furniture, introduction of school nutritional programmes, and provision of teaching and learning materials.

There have been high gender disparities regarding education in favour of boy child in Nandi County. The net enrolment rate in primary school was 84.5 per cent while the secondary enrolment rate was lower at 26.9 per cent. According to National Adolescent Youth Survey by the National Council for Population and Development (2017), an estimated 4,916 primary school age and 39,347 secondary school age children were out of school. According to the Kenya Demographic and Health Survey (KDHS) 2014/2015, the rate of teenage pregnancy was 13 per cent, which was low compared to other counties; however, caution was taken during the long period stay of children at home.

### **Educational Attainment**

The distribution of population aged 3 years and above by educational qualification attained is presented in Table 10.4. Approximately 55.9 per cent of the population do not have any educational qualification. This is higher than the national percentage of 49.7. Only 1.5 per cent of the population has attained university degree. The proportion of the population with CPE/KCPE qualification is 23.7 per cent and that of KCE/KCSE qualification is 10.6 per cent.

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

<b>Highest Educational Qualification</b>	<b>Percentage Distribution of Population</b>
None	55.9
CPE/ KCPE	23.7
KAPE	0.3
KJSE	0.1
KCE/ KCSE	10.6
KACE/ EAACE	0.1
Certificate	2.3
Diploma	1.5
Degree	1.5
Basic/post literacy certificate	0.1

Other	0.0
Not Stated	3.9

Source: KNBS (2016), KIHBS 2015/16

The percentage distribution of Nandi County residents 3 years and above who have ever attended school by the highest level reached, and sex is presented in Table 10.5. The proportion of males who had reached primary school level was 59.4 per cent while that of females was 57.9 per cent. There was a slight disparity between the proportion of persons who had reached university education level, with females recording a higher percentage than male (2.9% and 2.5%, respectively).

### Highest education

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

Educational Level	Gender	Percentage Distribution of Population 3 Years and above
Pre-primary	Male	11.9
	Female	10.0
Primary	Male	59.4
	Female	57.9
Post-primary vocational	Male	0.9
	Female	0.6
Secondary	Male	16.1
	Female	20.6
College (Middle level)	Male	5.5
	Female	4.1
University	Male	2.5
	Female	2.9
Madrassa/Duksi	Male	0.0
	Female	0.0
Other	Male	0.0
	Female	0.0
Not stated	Male	3.7
	Female	4.0
Number of Individuals ('000)	Male	422
	Female	418

Source: KNBS (2016), KIHBS 2015/2016

According to the National Adolescents and Youth Survey (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, and poverty which leads to school dropout as students cannot afford school fees.

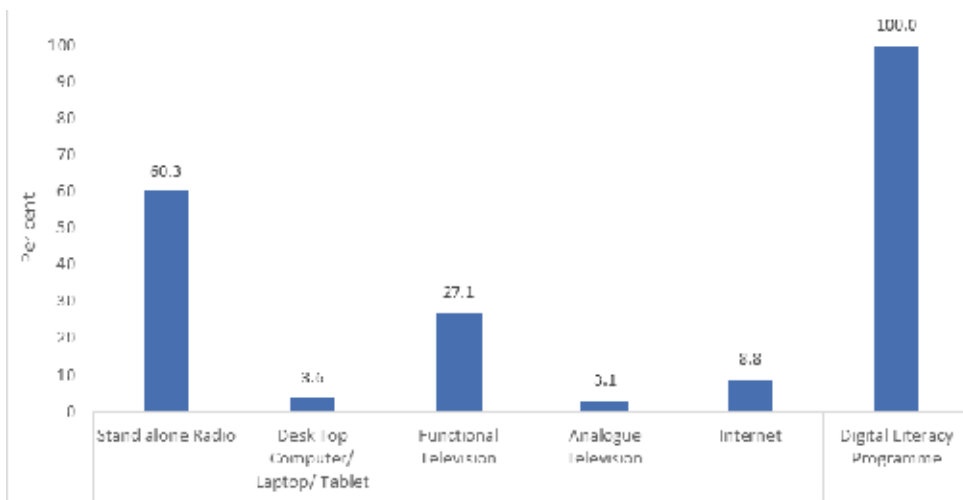
Many people in Nandi County lost their jobs because of the COVID-19 pandemic. Private schools were forced to lay off both teaching and support (casuals) staff because they could not sustain their salaries. Public schools faced challenges in making payment for other expenses such as electricity, water and security bills. Apart from the other expenses, public schools could not pay teachers who were hired on contract and were under Boards of Management.

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

### **ICT in education**

The entire county is not fully networked, hence limited access to e-learning programme for the larger portion of school children at home. Although almost all schools had access to the digital literacy programme, only 8.8 per cent of households had access to Internet. This means that doing online classes in the county is not easy, since 91.2 per cent do not have Internet access. Additionally, online classes require one to have at least a desktop computer/laptop or tablet. From the figure below, only 3.6 per cent of the county households have access to such gadgets. Therefore, conducting online classes would leave the other 96.4 per cent of the population behind. Another challenge is the inability of 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 programmes difficult.

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



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

Line Ministries and Departments such as Health, Education and development partners such as UNICEF and AMREF are involved in child immunization through a 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 defines the guidelines to be put in place in schools under the new normal. Education is also directly linked to agriculture sector to enhance food security. Some school dropout cases are due to lack of food, and thus agriculture comes in to provide food for the students, thus enabling them to concentrate in classes.

## 10.2 Opportunities with COVID-19 in Education and Training

As the county waited for reopening of schools, it reopened two major TVETs namely, Cheptarit Vocational Training Centre and Emsos Technical Training Institute to facilitate mass production of facemasks by PWDs.

The pandemic provides an opportunity for the expansion of schools and construction of other new structures to provide room for the smooth operation under the new normal once schools re-open.

There is also the opportunity of exploring remote learning; if effective, this will save time spent on travelling from home to schools to teach, hence reducing the cases of lateness and absenteeism.

The demand for PPEs such as masks in the county has led to local production by vocational technical training centres (VTCs), hence creating employment and income for the youth. The county government had thus encouraged the local production from various entities: the local tailors but most significantly, the VTCs thus creating employment and income for youth and women. With the safety

concern, however, is the need to address the issue of standards and quality of the locally produced PPEs so as not to be another avenue for the spread of the virus. The new normal has provided the urgent need for the investment in Information and Communication Technology to ensure effective operation of the county and support for the education sector.

The pandemic created an opportunity for creativity among college students who are involved in making of ventilators and researching on vaccines.

The demand for PPEs such as masks in the county led to local production by VTCs, hence creating employment and income for youth.

The pandemic brings an opportunity for the Nandi County Government and societies to continue investing in learning amidst the pandemic. This means revisiting response plans, shifting from emergency measures to chronic vigilance, adapting flexibility for hybrid learning by increasing network coverage, especially in the poorest households and continually upgrading ECDE and VTCs centres based on COVID-19 experiences

### **10.3 Emerging Issues**

Poor network coverage and poverty had hindered a larger population of school children's participation in e-learning education programmes run by the National Government. The county with support from stakeholders will need to continue investing in early childhood development through infrastructural development to allow for adequate social distancing when schools reopen, deploy ECDE teachers, provide sanitation facilities and enhance school feeding programmes. To achieve these objectives, the county will require partnering with the National Government and private sector to enhance ECDE and vocation training through infrastructural development and equipment of all ECDE, primary, secondary and vocational training, and university branches in the county with adequate WASH and adequate learning spaces upon reopening.

The county government with support from stakeholders is investing in early childhood development through infrastructural development to allow for adequate social distancing at class time. The county is also deploying more ECDE teachers, providing sanitation facilities and is planning to enhance school feeding programmes.

### **10.4 Recommendations**

There is need for financial support for the sector from the National Government through the County Government for the required guidelines to be met through construction of more classroom and learning facilities that most of the schools have been lacking in line with the new normal. There is need for support to all schools to embrace technology by ensuring connectivity across the county, because many children are currently missing on e-learning during this period. Areas of intervention include:

- (i) Establish additional vocational training centres to equip youths with the necessary skills for improved economic productivity.
- (ii) Promote back to school campaigns when schools reopen and community outreach to ensure that no child drops out of school due to COVID-19 pandemic related factors.
- (iii) Promote monitoring and address psychosocial well-being of students, teachers and education officers.
- (iv) Enhance support for all the schools to embrace technology by ensuring connectivity across the county because many children are currently missing on the e-learning during this period.
- (v) Promote construction of new classes.
- (vi) Build the capacity of all public schools.
- (vii) Integrate ICT into learning and promote distance learning programmes by implementing measures to ensure students from low-income backgrounds to have access to online education.
- (viii) Improve the safety status of school buildings and their surroundings and ensure adequate provision of sanitation facilities, social distancing and enhanced school feeding programme.

### **Key Highlights**

The proportion of literate population in the county is 91.9 per cent, with the male population more literate (94.2%) compared to their female counterparts (89.7%). 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 8.8 per cent of households had access to internet. In addition, only 3.6 per cent of the county households have access gadgets. Therefore, conducting online classes would leave the other 96.4 per cent of the population behind.

## 11. Social Protection

### 11.1 Characteristics of the Sector

#### Sources of vulnerabilities in the county

Nandi County has a high overall poverty rate of 69.0 per cent, food poverty estimates of 36.0 per cent against a national average of 36.1 per cent with severity estimate of 32 per cent in terms of multidimensional poverty. These estimates indicate that there are still cases of extreme poverty in the county and that the general population is poor. Despite government efforts to implement feeding programmes in the county, the proportion stunted children were 29.9 per cent. Of the total population, 1.8 per cent comprise of people living with various disabilities and 3.4 per cent are elderly persons aged 65 years and above, of which 50.5 per cent are females (KNBS, 2019).

There are minimal efforts in social protection and human resources as more focus is on education, health and water. However, the county continues to monitor the situation as it plans to ensure markets are accessible to people to continue with their activities. Due to limited resources, the county has no plans currently on employment benefits. Apart from waving the charges on licenses and market fees, the county has also undertaken to boost the small and medium enterprises with loans at low interest rates to get them revived. Those whose businesses have been adversely affected by COVID-19 are provided with food to cushion their families during the pandemic.

The social and economic effects of the COVID-19 pandemic increased households' susceptibility to Gender-Based Violence (GBV) in the county. In Nandi County, domestic violence has been reported to be on the rise amidst COVID-19. Based on the May 2020 KNBS COVID-19 survey, 17.4 per cent of the respondents in the county indicated to have witnessed or heard some form of domestic violence in the community since COVID-19 measures were instituted. Further, the Healthcare Assistance Kenya (HAK) reports that a total of 5 GBV cases were recorded in Nandi County during the Month of April 2020. None of the reported cases were among boys and girls. The challenges affecting the youth include unemployment and drug use, especially alcohol and substance abuse

#### Severe shocks to the households

Severe shocks have had negative impact on household's economic and social welfare of Nandi County residents. Table 11.1 presents the proportion of households by the first severe shock in Nandi County. Death of livestock was experienced by 28.8 per cent of households followed by crop disease or crop pests at 27.4 per cent.



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

<b>First Severe Shock</b>	<b>Proportion of Households</b>
Droughts or floods	10.5
Crop disease or crop pests	27.4
Livestock died	28.8
Livestock were stolen	0.6
Household business failure, non-agricultural	0.9
Loss of salaried employment or non-payment of salary	0.5
End of regular assistance, aid, or remittances from outside the household	0.0
Large fall in sale prices for crops	1.1
Large rise in price of food	6.6
Large rise in agricultural input prices	0.6
Severe water shortage	0.3
Birth in the household	0.0
Death of household head	4.2
Death of working member of household	0.2
Death of other family member	12.4
Break-up of the household	1.4
Bread winner jailed	0.0
Fire	0.5
Robbery / Burglary / Assault	1.7
Carjacking	0.0
Dwelling damaged, destroyed	0.4
Eviction	0.0
Ethnic/ Clan clashes	0.0
Conflict	0.0
HIV/AIDS	0.5
Other	5.6
<b>Number of households with shock</b>	<b>141,000</b>

Source: KNBS (2016), KIHBS 2015/2016

The county government has put in place a youth empowerment programme since 2019. This involves constructive engagement of the youth in productive activities such as agri-business, livestock farming and sporting activities, thus enabling

them to acquire skills that make them self-dependent. Through the Ministry of Sports, Youths Affairs and Arts, the county acquired 100 welding machines and 14 toolboxes that were distributed to youth groups in the 30 wards within the county. These have been used to initiate startups and Jua Kali businesses, thus engaging even more youths in addition to more support from the county through registered youth groups.

The county survey of existing orphans and vulnerable children is yet to be done. However, some households are benefiting from the OVCs cash transfer programme. There is an emerging threat of street children in the county due to rapid urbanization, and thus the need for support programmes across the county. The other support programmes existing in the county include medical cover for the elderly, women and PWDs, youth skills development programme, cash transfers programmes for the vulnerable, Youth Enterprises Development Fund, Uwezo Fund, Women Enterprises Fund, and rehabilitation of drug and substance addicts. These programmes need to be strengthened to address the existing social needs within.

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, have 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. Other challenges affecting the youth include unemployment and drug use, especially alcohol and substance abuse.

Open air markets were closed, which mostly serve as place of trade. Most people in these markets were women. This affected their welfare in terms of finances and access to food and other goods and eventual decline in living standards. Livestock markets were also closed, making it hard for people to sell their livestock which serves as a main source of income. This meant that they no longer feed their households members. Other small-scale traders such as those in transport industries were affected since the number of passengers they carry per trip has been reduced due to the introduction of social distance requirements. Shops and kiosks, social centres such as clubs and bars, and hotels were affected by the curfew and social distance requirements resulting in an increase in unemployment rates in the county.

Most of the social protection operations were undertaken through non-contributory transfers in cash for the elderly, OVCs and PWDs. In some instances, in kind transfers such as school feeding programmes were used to reach a wider audience and age group.

Potential sources for revenue were adversely affected by the floods and COVID-19. However, by lifting restrictions and the measures taken by the county, local businesses are picking up, which will 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 for implementing 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.

The dawn to dark curfew had affected the operation of many sectors, including agriculture, which form the main source of livelihood in Nandi County. The transport sector and the SMEs have also been adversely affected with the social distancing and the need to significantly reduce overcrowding. The county was also faced with mudslides and floods. The County Government reached out to all affected persons and provided them with iron sheets and built houses for all displaced persons. Athletes at training camps within the county became vulnerable during this time because they are unable to go out for training. However, the county recently opened the tracks for training by athletes. The well-established athletes such as Eliud Kipchoge stepped in to assist vulnerable athletes in the community with foodstuffs during this time.

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's 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, etc. Communication is key especially for people in business, as one needs to place orders for goods or services. ICT is also involved in record keeping of those people in schemes such as NHIF and NSSF, and other insurances.

Additionally, social protection is directly related to education. The more one is educated, the more informed of existing welfare schemes. Educated people are likely to be more aware of the need for and importance of engaging in social protection programmes such as insurance and investment for future to benefit after retirement. With good education, one can understand the role of the government in ensuring good life for its citizens.

### **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 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, 23 per cent of households received cash transfers. A higher proportion of households received transfers from within the country (57%), mainly from individuals (68%) while external transfers constituted 24 per cent.

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

	Beneficiaries 2015/16
Total number of households	202,000
Households receiving transfers (%)	23
From inside Kenya: Individual	17,846
Non-profit institution	596
National Government	1,382
County Government	139
Corporate Sector	-
Inside Kenya	19,962
Outside Kenya	1,185
Total	16,149
Number of households that received transfers	<b>46,000</b>

Source: KNBS (2016), KIHBS 2015/2016

## 11.2 Opportunities with COVID-19 in Social Protection

To revive the economy, the county could review its CIDP to focus on the expansion of the main productive areas such as agriculture to enhance food security, tourism and commerce and 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 the pandemic when most employees worked from home. The county is also involved in inter-governmental discussions focused on working on securing the economy in areas such as public health, national security and agriculture. Local production of safety gears has created an opportunity for the expansion of the capacity of local TVETs that have been very helpful.

COVID-19 has provided an opportunity for expansion and improvement of the health care system in the county. ICT enabled the county programmes to run smoothly and provided an opportunity for exploitation for adequate Internet coverage, especially to the education sector which was relying on online classes.

Under normal circumstances in support of Persons with Disabilities (PWDs), the county gives sewing machines to vulnerable groups to enhance their livelihoods. Therefore, as a social protection measure in this period, the county sourced and purchased material for sewing masks locally from Rivatex East Africa Limited and trained PWDs to produce face masks. The county purchases the masks produced by PWDs at Ksh 15 each above the market price to assist them during this difficult time. The county has also advised the business community to go easy on tenants during this time.

### **11.3 Emerging Issues**

The COVID-19 pandemic exposed lack of preparedness among counties in terms of responding to the emergencies. Lack of comprehensive social protection at the county level exposes the county residents to lack of food and treatment. Due to social distancing and curfew hours, GBV victims had limited contact with family and friends who would act as the first contact persons during violence. Survivors also experienced challenges accessing healthcare services, counseling services and access shelters. These challenges underscore the need for deliberate measures at the county level to prevent and support GBV survivors in times of emergencies as experienced with the pandemic.

The social and economic effects of the COVID-19 pandemic increased households' susceptibility to Gender-Based Violence (GBV) in the county. The 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, thus exposing household members to psychological, economic, sexual violence and physical harm as couples spend more time in close contact. In Nandi County, domestic violence was reported to be on the rise amidst COVID-19. Based on the May 2020 KNBS COVID-19 survey, 17.4 per cent of the respondents in the county indicated to have witnessed or heard some form of domestic violence since COVID-19 measures were instituted. Further, the Healthcare Assistance Kenya (HAK) reports that a total of 5 GBV cases were recorded in Nandi County during April 2020. None of the reported cases were among boys and girls. Other challenges affecting the youth include unemployment and drug use, especially alcohol and substance abuse.

Nandi County has a high overall poverty rate of 69.0 per cent, food poverty estimates of 36.0 per cent against a national average of 36.1 per cent with severity estimate of 32.0 per cent in terms of multidimensional poverty. These estimates indicate that there are still cases of extreme poverty in the county, and that the general population is poor. Despite government efforts to implement feeding programmes in the county, the proportion stunted children stands at 29.9 per cent.

The county has an estimated population of 885,711 of which 1.8 per cent are living with disabilities and 3.4 per cent are older persons aged 65 years and above, and of which 50.5 per cent are females (KNBS, 2019).

## **11.4 Recommendations**

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

- (i) Create awareness to workers on the available social protection services such as the NHIF, especially in the informal sectors. The farmers mostly operate in cooperatives, and therefore the need to encourage all farmers to be part of the group's insurance cover.
- (ii) Build linkages with other departments and with NGOs that work with people with disabilities to strengthen families, deliver assistive devices, reduce barriers to access and provide vocational training; design and implement a disability grant to all those who are severely disabled, and who are above the age of eligibility for the infant grant and below the age of eligibility for the old age pension.
- (iii) Protect vulnerable groups in the population from health costs by enhancing NHIF coverage; improve knowledge of the existing insurance schemes to improve uptake; and subsidize NHIF premiums for targeted vulnerable populations.
- (iv) Addressing gender issues. The county will we take the following measures:
- (v) Launch hotlines/helplines using toll-free calls and SMS numbers for gender-based violence victims. This will assist GBV victims to access support and guidance to include psycho-social support, counseling, and health care.
- (vi) Establish platforms for tele-counsellors to offer virtual counselling services to affected persons during emergencies/pandemics to mitigate the effects of the high levels of stress and anxiety associated with such emergencies.
- (vii) Provide online sensitization and GBV education as a preventive measure on the prevalence of GBV during emergency periods. The county governments can identify GBV champions to serve as agents of change, changing harmful attitudes and behaviour in communities that lead to GBV.
- (viii) In addition, the county will designate gender safe spaces to provide accommodation to GBV survivors.

## 12. Labour Participation

### 12.1 Characteristics of the Sector

#### Sources of employment in the county

Over 70 per cent of households in Nandi County practice farming. About 71 per cent of the households produce crops, 56 per cent produce livestock, 0.41 per cent practice aquaculture and about 0.52 per cent are involved in fishing. About 1.9 per cent of households practice irrigation farming. Other people are employed in the tea sector where both males and females are engaged in activities of harvesting and other tea preparation processes. Other source of employment includes livestock farming, which is done on small scale, dairy farming, sand harvesting and boda boda industry, which are mostly dominated by males. All these employment sources have been affected by COVID-19 where some people have been rendered jobless, a situation which has affected the livelihood of residents.

As the economic base for the county is agriculture, tea farmers and workers in the tea sector were adversely affected because of fluctuations in tea prices in the global market, with some tea farm workers losing their jobs. The introduction of social distancing in the matatu industry affected the transport sector, which resulted into less profit while introduction of lockdown in Nairobi and Mombasa County led to loss of jobs in the industry. Related to this, 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. The impact of the pandemic were also felt on the services sectors as it affected workers in both the private and public sector. Several people working in restaurants and bars were rendered jobless due to closure as ordered by the government.

The county has no major processing and manufacturing industries. However, it has several factories that engage in tea processing, coffee pulping confectioneries and water bottling. There is great potential in industrial development in the county due to availability of raw materials (tea, sugarcane, avocados, livestock, skins and hides, underlying rocks), abundant labour, readily available market, political good-will and other support systems.

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

	Male	Female	Total
Population	386,727	391,032	777,779

Working	179,125	187,517	366,657
Seeking work/No work available	15,463	10,030	25,493
Persons outside the labour force	192,093	193,451	385,549
Not Stated	46	34	80
<i>per cent Working</i>	<i>92.0</i>	<i>94.9</i>	<i>93.5</i>
<i>Per cent seeking work/ No work available</i>	<i>7.9</i>	<i>5.1</i>	<i>6.5</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. The county population aged 15-64 years (labour force) was estimated at 392,140 people of whom 366,657 were working and 25,493 were seeking work, representing an unemployment rate of 6.5 per cent (KNBS, 2019).

### Effects of COVID-19

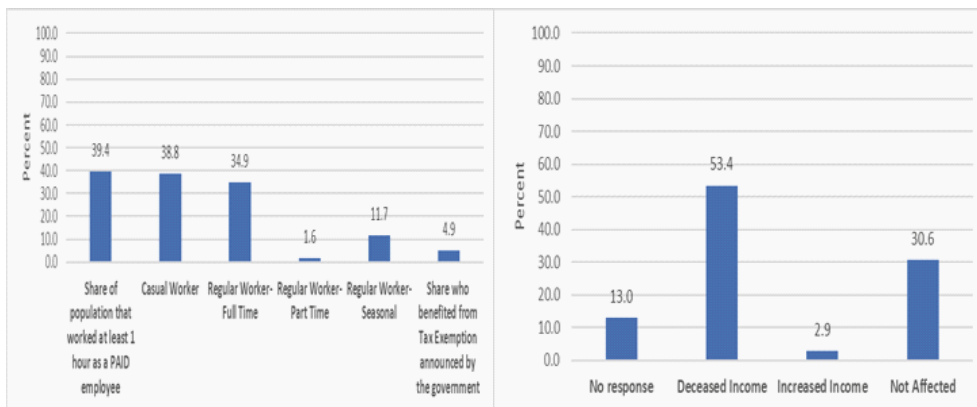
The unemployment increased during the period of COVID-19, according to May 2020 KNBS COVID-19 Survey. About 39.4 per cent of the county labour force worked at least for 1 hour for pay and 60.6 per cent of employees working without any pay. Further, about 52 per cent had never worked, and 55.4 per cent worked in the informal sector. However, 2.3 per cent of employees did not attend to work due to COVID-19. On average, workers in the county lost 9.4 hours per week due to COVID-19.

During the pandemic, about 38.8 per cent of workers in the county were casual workers while 34.9 were regular workers (full time). Another 11.7 per cent employees were working part time. About 39.4 per cent of the county labour force worked at least for 1 hour for pay and 60.6 per cent of employees worked without any pay. The county population aged 15-64 years (labour force) was estimated at 487,986 people of whom 464,247 were working and 23,739 were seeking work, representing an unemployment rate of 4.9 per cent.

About 4.9 per cent of workers reported to have benefited from government tax exemptions, which indicates that about 95 per cent did not benefit from National Government tax relief for low-income-earning persons, a reduction in the top Pay-As-You-Earn (PAYE) rate, and other changes such as cash transfers, credit relief, lower VAT, and a corporate tax cut.



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



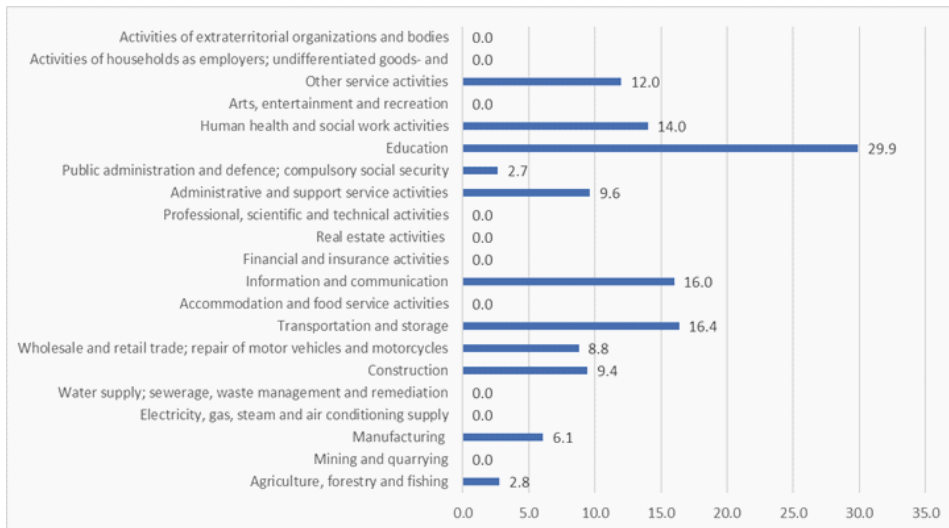
a) *Effect of COVID-19 on Jobs; b) Effect of COVID-19 on Incomes*

Source: KNBS COVID-19 survey, 2020

About 39.4 per cent of the county labour force worked at least for 1 hour for pay and 60.6 per cent of employees worked without any pay. About 52 per cent had never worked, and 55.4 per cent worked in the informal sector. However, 2.3 per cent of employees did not attend to work due to COVID-19. On average, workers in the county lost 9.4 hours per week due to COVID-19.

According to May 2020 KNBS COVID-19 survey, the county reported a decrease of 9.4 hours in the mean working hours per week for workers in non-farm and farm businesses, which can be attributed to the pandemic due to the cessation measures and closure of businesses. As a result of closure of schools, workers in the education sector reported the highest level of loss of hours worked in a week (29.9 hours) followed by transportation and storage which lost 16.4 hours per week. Workers in human health and social work activities recorded a loss of 14.0 hours while wholesale and trade recorded a loss of 8.8 hours. Manufacturing and construction sectors lost 6.1 and 9.4 hours worked in a week, respectively. Workers in the agriculture sector, which is the economic mainstay of the county lost 2.8 hours in a week and this may have a negative effect on county GCP. About 80.0 per cent of employees did not benefit from tax exemption by the government.

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



Source: KNBS COVID-19 Survey, 2020

The labour participation rate in Nandi County fell significantly because of the pandemic. The May 2020 KNBS COVID-19 survey shows that the county recorded 2.3 per cent work absenteeism and 60.6 per cent working without a pay. These include the self-employed and farm workers. Businesses such as bars, hotels, and market centres had totally closed, leading to reduced business activities due to the containment measures put in place by both national and county governments. Some workers in the transport sector lost jobs due to restrictions of moving in and out of Nairobi and Mombasa counties. The high demand for sanitation services resulted to no loss in hours worked in water sector.

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

The county government has been provided an opportunity to collaborate with the regional trading block to enhance exchange of human resources across the other counties. During the pandemic, the counties were sharing health personnel, hence the need to exploit human resource in other sectors.

The county has an opportunity to expand education by constructing various structures to accommodate students and to meet the requisite mitigation measures such as social distancing. The economic block also provides an opportunity to be exploited, such as exchanging human resources and trading commodities and opportunities to tap on competitive advantage.

The COVID-19 pandemic has hastened the arrival of ICT as the economic effect of the global pandemic (COVID-19) provides an opportunity for acceleration of digitalization in the work environment. The county government needs to

immediately use digital platforms to enable remote access to jobs for employees where the human resource management will have an essential role to play in navigation of the situation caused by the pandemic.

The pandemic has provided an opportunity for capacity building of health workers as there have been notable efforts by the county government to invest more money in training health workers. The county government now has an opportunity to recalibrate its employees and develop strategies (mid- and post-pandemic strategies) to adapt to the evolving reality.

### **12.3 Emerging Issues**

There is upsurge in unemployment rates as the tea sector, which employs majority of the workers, has been affected by reduced prices in the international market. The economy will take time to recovery, and there are limited opportunities for those looking for employment.

The COVID-19 pandemic has expedited the speed at which different firms and businesses within the county are changing their pay programmes through pay reductions and incentive resets. The County Governor and his Deputy experienced a 30 per cent pay cut. In addition, the County Executives took a 20 per cent pay cut while County Chief Officers took 15 per cent pay cut.

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

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

### **12.4 Recommendations**

- (i) Promote workers in the informal economy by pursuing innovative policies to reach them quickly through a combination of non-contributory and contributory social protection schemes and facilitating productivity of the informal sector both in the shorter and longer term.
- (ii) Build workplace resilience to public health emergencies and outbreaks of infectious diseases through greater involvement of communities; embracing greater peer learning and COVID-19 mitigation measures knowledge exchange; and professional development.
- (iii) Strengthen the capacity of workers and employer organizations to enhance their knowledge base and understanding of the mechanism of retooling and sustaining the county's human resources beyond the COVID-19 pandemic.

## **Key highlights**

The economy of the county is mainly agro-based. The main food crops grown are maize, pigeon peas, beans, Irish potatoes, sweet potatoes, sorghum, cassava and finger millet while the cash crops are coffee, cotton, macadamia and pyrethrum.

An assessment on the county labour force indicates the county population aged 15-64 years (labour force) was estimated at 487,986 people, of whom 464,247 million were working and 23,739 were seeking work, representing an unemployment rate of 4.9 per cent (KNBS, 2019).

The unemployment has increased during the period of COVID-19. According to May 2020 KNBS COVID-19 Survey, about 39.4 per cent of the county labour force worked at least for 1 hour for pay and 60.6 per cent of employees working without any pay. Further, about 52 per cent had never worked, and 55.4 per cent worked in the informal sector. However, 2.3 per cent of employees did not attend to work due to COVID-19. On average, workers in the county lost 9.4 hours per week due to COVID-19.

About 38.8 per cent of workers in the county are casual workers while 34.9 are regular workers (full time). Another 11.7 per cent employees are working as part time. About 39.4 per cent of the county labour force worked at least for 1 hour for pay and 60.6 per cent of employees worked without any pay.

The county population aged 15-64 years (labour force) was estimated at 487,986 people, of whom 464,247 were working and 23,739 were seeking work, representing an unemployment rate of 4.9 per cent.

About 4.9 per cent of workers reported to have benefited from government tax exemptions, which indicates that about 95 per cent did not benefit from National Government tax relief for low-income-earning persons.

## 13. Conclusion and Key Recommendations

### 13.1 Conclusion

#### **Fiscal policy**

The county total revenue has significantly grown over the years as the Government focuses on enhanced services and amenities for the citizens. Total revenue increased by 63 per cent from Ksh 4.07 billion in 2013/14 to Ksh 6.65 billion in 2020/21. The amount realized in 2020/21 was 87.3 per cent of the annual budget allocation of Ksh 7.61 billion. The performance was an improvement from the 72.2 per cent attained in 2019/20. This was supported by the 100 per cent remittances of equitable shares and conditional grants from the National Government. Analysis of the sources of the county revenue show that equitable shares contributed the largest share of total revenue, averaging 80.45 per cent over the same period. During 2020/21, equitable share amounted to Ksh 10.41 billion, representing 100 per cent of the annual budget allocation. This accentuates the commitment of the National Government to support county operations.

#### **Agriculture, livestock and fisheries**

The agri-food analysis highlights that the sector was negatively affected by COVID-19 in terms of labour supply, trade and marketing operations, food supply and the resulting effects on food prices. At the peak of the COVID-19 pandemic, the county also suffered from livestock diseases, and floods. The county's agricultural productivity is also affected by variable and extreme weather events; land fragmentation, unsustainable natural resources management practices; low adaptive capacity of farmers to climate change; low agro-processing and value addition opportunities; low access to quality and affordable inputs; low 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.

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

The county relies more on surface water, water from springs and dug well to minimize the risks of households missing water. It is important to put in place measures to ensure protection of water resources for continuity of access to clean and safe water by households.

#### **Manufacturing, trade and MSMEs**

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

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

The main means of transport used in the county is walking followed by motorbike. Majority of the paved road network in the county is 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, and lack of knowledge and skills on Internet are the leading reasons that the people in the county do not have Internet connection. The housing tenure is predominantly owner occupied, where a large proportion of houses are constructed using rudimentary materials. In responding to the challenges, the county will identify county significant infrastructure projects for implementation under a stimulus package to support economic recovery from the effects of the pandemic; harness the power of technology and use innovative solutions to bridge the gender digital divide; and avail appropriate building technology for use by the public in house construction and improvement in every sub-county that responds to local cultural and environmental circumstances.

### **Tourism**

Nandi County prides in its spectacular and distinguishing landscapes, cool highlands climate and lush green vegetation cover. It has 66 identified tourist sites scattered across the county, but to a large extent have not been fully developed to attract visitors. The main tourism physical attractions include the Nandi Rock and the South Nandi Forest, the latter of which requires huge investment in conservation and maintenance to turn it into a tourist attraction with huge benefits to the county. Nandi County is rich in cultural heritage, which needs to be developed, promoted, and preserved for social and economic gains. Infrastructure such as museums, art and cultural centres, multimedia and recording studios need to be developed to aid the county in harnessing its cultural heritage.

### **Health**

The COVID-19 has worsened the situation as far as youth and women are concerned. These are groups of people that were already facing several challenges before the outbreak of 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 lockdowns. Other problems facing the youth include teenage pregnancies, malnutrition, STI/HIV and AIDS, poor environment, drug and substance abuse and malnutrition.

### **Education and training**

The county had gaps in early childhood development through infrastructural

development to allow for adequate social distancing, deployment of ECDE teachers and provision of sanitation facilities. The county recorded low completion rates at all levels of education.

### **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. There is need to undertake research to get a better understanding of the actual situation of disability and chronic illness in Nandi County, and to map existing initiatives to improve it.

### **Labour participation**

The COVID-19 pandemic has expedited the speed at which different firms and businesses within the county are changing their pay programmes through pay reductions and incentive resets. The County Governor and his Deputy experienced a 30 per cent pay cut. In addition, County Executives took a 20 per cent pay cut while County Chief Officers took 15 per cent pay cut. It will be important for the county to promote implementation of appropriate labour market interventions, especially those working in the tea sector, which is a major employer in the county and policy reforms that drive employment creation. There is need to deepen technical education, training and skills development.

## **13.2 Key Recommendations**

### **Fiscal policy**

To support effectiveness of spending at the county, there is need to: ensure that ongoing projects are completed before launching new projects and clearing any pending bills and arrears owed to suppliers; improve budget execution and absorption of development budget by harmonizing project implementation cycles to budgeting and fast-track exchequer releases; reduce expenditure on compensation of employees within the PFM requirement since ballooning compensation of employees potentially affects execution of key development programmes especially if not brought to sustainable levels; and monitoring and prompt payment of pending bills as they limit execution of planned activities in subsequent budgets.

### **Agriculture, livestock and fisheries**

To successfully build resilience and enhance growth of the agriculture sector, there is need 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; promote adoption of modern technologies, conservation agriculture techniques and sustainable land management; enhance farmers access to critical agricultural inputs and services and build their technical capacity to act on information obtained; provide storage and cooling facilities; and strengthen agricultural cooperatives.

### **Water sanitation and hygiene**

To build resilience and mitigate the effect of COVID-19, there is need to: increase water supply in households, institutions, and public places by 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; and promote handwashing as a stop-gap measure against COVID-19.

### **Manufacturing, trade and MSMEs**

To sustain growth in the manufacturing, trade and MSMEs sector, there is need 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, 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 businesses and traders through affordable credit; waive of some county taxes, cess, and other charges; require businesses to adopt to the new pandemic guidelines requiring rearranging of floor plans to allow for social distancing; and create partnerships with other counties to enhance markets for the county's produce and sustainability. 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 generate jobs for the youth. The county could prioritize completion of the industrial park being set up at Chemase in partnership with EPZA.

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

The main means of transport used in the county is walking followed by motorbike. Majority of the paved road network in the county is 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, and 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, where the larger proportion of houses are constructed using rudimentary materials. In responding to the challenges, the county will identify significant infrastructure projects for implementation under a stimulus package to support economic recovery from the effects of the pandemic; harness the power of technology and use innovative solutions to bridge the gender digital divide; and avail appropriate building technology for use by the public in house construction and improvement in every sub-county, which responds to local cultural and environmental circumstances.

### **Tourism**

Nandi County is rich in cultural heritage, which needs to be developed, promoted, and preserved for social and economic gains. Infrastructure such as museums, art and cultural centres, multimedia and recording studio need to be developed to aid the county in harnessing its cultural heritage. Other strategies to support recovery of tourism in the county include research and documentation on potential of traditional medicine in the county, development of tourism information centres, and promotion of



the tourism sector by investing in establishment of the Kamatargui Wildlife Sanctuary for rehabilitation of different types of wildlife species.

### **Health**

For a resilient health sector, there is need to create awareness on immunization so that mothers can ensure their children get immunized. There is also need to 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 on time to avoid cases of strikes and low staff morale. There will also be need to recruit additional public health officers and community health workers to strengthen preventive and public health systems.

### **Education and training**

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

### **Social protection**

The COVID-19 pandemic created immediate and long-term economic consequences for vulnerable groups, including children, PWDs, elderly and their families. To strengthen social protection response in face of a similar pandemic, there is need to: provide basic income security, especially for persons whose jobs or livelihoods have been disrupted by the pandemic; and build linkages with other ministries, and with NGOs that work with people with disabilities to strengthen families, deliver assistive devices, reduce barriers to access and provide vocational training.

### **Labour participation**

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

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