

# **Socio-Economic Status of Narok County with COVID-19**

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



## **Socio-Economic Status of Narok 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*

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

*2022*

## **KIPPRA in Brief**

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

Published 2022

© Kenya Institute for Public Policy Research and Analysis

Bishops Garden Towers, Bishops Road

PO Box 56445-00200 Nairobi, Kenya

tel: +254 20 2719933/4; fax: +254 20 2719951

email: [admin@kippra.or.ke](mailto:admin@kippra.or.ke)

website: <http://www.kippra.org>

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

# Table of Contents

Table of Contents.....	iii
Abbreviations and Acronyms .....	ix
Acknowledgements.....	x
Executive Summary.....	xi
<b>1 Introduction and Structure of Narok County Economy .....</b>	<b>1</b>
1.1 Introduction .....	1
1.2 Level of Socio-Economic Deprivations .....	3
1.3 Structure of Narok County Economy.....	4
1.4 COVID-19 Caseload and Implications of Mobility Restrictions .....	4
<b>2 Fiscal Policy .....</b>	<b>7</b>
2.1 County Expenditure Analysis.....	10
2.2 Conclusions.....	16
<b>3 Agriculture, Livestock and Fisheries .....</b>	<b>17</b>
3.1 Characteristics of the Sector .....	17
3.2 Opportunities with COVID-19 in Various Sectors .....	27
3.3 Emerging Issues .....	28
3.4 Recommendations .....	28
<b>4 Water, Sanitation and Hygiene .....</b>	<b>30</b>
4.1 Characteristics of the Sector.....	30
4.2 Opportunities with COVID-19 in Various Sectors.....	37
4.3 Emerging Issues .....	37
4.4 Recommendations .....	37

<b>5</b>	<b>Manufacturing, Trade and MSMEs</b> .....	<b>39</b>
5.1	Characteristics of the sectors .....	39
5.2	Opportunities with COVID-19 in Industrial Recovery and Growth .....	53
5.3	Emerging Issues .....	54
5.4	Recommendations .....	54
<b>6</b>	<b>Infrastructure</b> .....	<b>56</b>
6.1	Transport and Roads .....	56
6.2	Information and Communication Technology .....	60
<b>7</b>	<b>Housing and Urban Development</b> .....	<b>65</b>
7.1	Characteristics of the sector .....	65
7.2	Opportunities in housing and development .....	69
7.3	Emerging Issues .....	69
7.4	Recommendations .....	69
<b>8.</b>	<b>Tourism</b> .....	<b>71</b>
8.1	Characteristic of the sector .....	71
8.2	Opportunities with COVID-19 in Tourism Sector .....	72
8.3	Emerging Issues .....	72
8.4	Recommendations .....	72
<b>9</b>	<b>Health</b> .....	<b>74</b>
9.1	Characteristics of the sector .....	74
9.2	Opportunities with COVID-19 in Health Sector .....	82
9.3	Recommendations .....	82
<b>10</b>	<b>Education and Training</b> .....	<b>84</b>
10.1	Characteristics of the sector .....	84
10.2	Opportunities with COVID-19 in education and training .....	90

---

10.3	Emerging Issues .....	91
10.4	Recommendations.....	91
<b>11</b>	<b>Social Protection .....</b>	<b>92</b>
11.1	Characteristics of the sector .....	92
11.2	Opportunities with COVID-19 in social protection .....	96
11.3	Emerging Issues .....	96
11.4	Recommendations.....	97
<b>12</b>	<b>Labour Participation.....</b>	<b>98</b>
12.1	Characteristics of the Sector.....	98
12.2	Opportunities with COVID-19 in Labour participation.....	101
12.3	Emerging issues.....	101
12.4	Recommendations.....	102
<b>13</b>	<b>Conclusion and key recommendations .....</b>	<b>103</b>
13.1	Conclusion .....	103
13.2	Key recommendations .....	105

## LIST OF TABLES AND FIGURES

### Tables

Table 1.1: Development indicator in Narok County.....	1
Table 1.2: Population distribution for selected age groups in the County (2019) .....	2
Table 1.3: Level of Deprivations for the various indicators for multidimensional poverty.....	3
Table 1.4: Total COVID-19 cases in Narok County and the country’s mobility stringency .....	5
Table 2.1: Cumulative Monthly cash transfers from National Government (Ksh Million) .....	8
Table 2.2: County departmental/priority spending .....	14
Table 3.1: Distribution of Households Practicing Agriculture, Fishing and Irrigation by County and Sub County .....	17
Table 3.2: Distribution of Households Growing Other Crops by Type, County and Sub County .....	18
Table 3.3: Distribution of Households Growing Permanent Crops by Type and County.....	19
Table 3.4: Fruits Grown in Narok County .....	19
Table 3.5: Vegetables Grown in Narok County.....	20
Table 3.6: Medicinal and Aromatic Plants (MAPs) Grown in Narok County .....	20
Table 3.7: Distribution of Households Rearing Livestock and Fish by County and Sub County .....	21
Table 5.1: Distribution of Manufacturing firms by gender and size - N ( per cent).....	39
Table 5.2: Employment by gender and size for manufacturing firms.....	40
Table 5.3: Level of innovation by firms in Manufacturing .....	40
Table 5.4: Distribution of MSMEs by gender and size -N (per cent) .....	48
Table 5.5: Employment by gender and Size - N (per cent).....	49
Table 5.6: Level of innovation by MSMEs .....	50
Table 7.1: Distribution of population by Urban Centers by gender .....	65
Table 9.1: Health provision .....	74
Table 9.2: Per centage Distribution of the Population that reported Sickness/Injury.....	75
Table 9.3: Percentage distribution of the county’s population with health insurance cover by type of health insurance provider (%) .....	76
Table 9.4: Proportion of Children aged 0-59 Months by Place of Delivery (per cent) .....	76
Table 9.5: Proportion of children aged 0-59 month immunized against measles.....	77
Table 9.6: Health indicators in Narok county .....	78
Table 10.1: Gross Attendance Ratio and Net Attendance Ratio by Educational Level .....	85
Table 10.2: Gross and net enrolment rate (per cent), 2019.....	85
Table 10.3: Per centage Distribution of Population aged 15 Years and above by Ability to Read and Write (per cent) .....	87
Table 10.4: Per centage Distribution of Population by Highest Educational Qualification .....	87
Table 10.5: Per centage Distribution of Residents 3 Years and above who had ever Attended School by Highest Level Reached, and Sex for Narok County (per cent) .....	88
Table 11.1: The proportion of households by the First Severe Shock in the County .....	92
Table 11.2: The proportion of households that received cash transfers by source, and household headship .....	94
Table 12.1: Distribution of Population Age 5 Years and above by Activity Status, and Sex in the County .....	98

---

## Figures

Figure 1.1: Structure of the County Economy, 2013-2020 .....	6
Figure 1.2: New COVID-19 cases in Narok County and the country's mobility stringency .....	8
Figure 1.3: Effects of COVID-19 on Narok County economic performance and the country's mobility stringency .....	10
Figure 2.1: Share of county revenues by source.....	10
Figure 2.2: Annual Own Source Revenue targets and actual collections.....	12
Figure 2.3: Quarterly Own Source Revenue collection.....	13
Figure 2.4: County expenditure analysis .....	15
Figure 2.5: County government expenditure by economic classification (per cent of total spending)	16
Figure 2.6: County Approved Expenditure and Absorption rates .....	18
Figure 2.7: profile of county pending bills .....	22
Figure 3.1: Scale of Operation: per cent of households .....	22
Figure 3.2: Agriculture Related Labor Force Participation .....	23
Figure 3.3: Changes in Hours Worked by in Agriculture Related Occupations .....	23
Figure 3.4: Limited access to markets to purchase food items .....	24
Figure 3.5: Reason for Limited access to markets/ grocery stores .....	24
Figure 3.6: Per centage of households experiencing change in food commodity prices .....	25
Figure 3.7: Proportion of households facing large food price shocks .....	25
Figure 3.8: per cent Households reporting that the following food items were not readily available in their locality.....	26
Figure 3.9: per cent of households where the following strategies were adopted for at least one day	31
Figure 3.10: Per centage of households who experienced the below shocks in the past two weeks the KNBS Wave 2 survey .....	31
Figure 4.1: Access to sources of water by households .....	32
Figure 4.2: Access to improved and unimproved sources of water by households .....	33
Figure 4.3: Volume of water used by households in a month .....	33
Figure 4.4: Distance covered by households to and from water sources .....	35
Figure 4.5: Access and reliability to water sources by households .....	36
Figure 4.6: Access to sanitation by household.....	34
Figure 4.7: Access to improved and unimproved sanitation by households.....	35
Figure 4.8: Number of households sharing a toilet facility .....	36
Figure 4.9: Access to wash during the COVID-19 period .....	37
Figure 5.1: Sector of operation in manufacturing.....	39
Figure 5.2: Manufacturing firms by sector and size .....	40
Figure 5.3: Location of manufacturing firms by premises .....	40
Figure 5.4: Distribution of Manufacturing firms by gender and sector .....	41
Figure 5.5: Education levels of manufacturing firm owners .....	42
Figure 5.6: Source of markets .....	43
Figure 5.7: Source of material inputs.....	43
Figure 5.8: Sources of finance .....	44



Figure 5.9: Recent sources of credit.....	45
Figure 5.10: Main purpose of credit.....	45
Figure 5.11: Constraints faced by manufacturing firms.....	46
Figure 5.12: Distribution of MSMEs by size .....	47
Figure 5.13: Sector of operation by MSMEs .....	47
Figure 5.14: Location of businesses by premises .....	48
Figure 5.15: Education levels of MSME owners .....	49
Figure 5.16: Main constraints faced by MSMEs .....	51
Figure 5.17: Effects of COVID-19 on household non-farm and farm businesses.....	52
Figure 5.18: Labour dynamics on household non-farm and farm businesses .....	52
Figure 6.1: Main Means of Transport .....	56
Figure 6.2: Change in Cost of Main Means of Transport .....	57
Figure 6.3: Change in Travel Patterns .....	57
Figure 6.4: Proportion of Residents Whose Service Delivery has been Affected.....	58
Figure 6.5: Road Condition Mix-Classified Road Network.....	58
Figure 6.6: per centage distribution of conventional households by ownership of ICT assets KPHC 2019 .....	61
Figure 6.7: Reasons for Lack of Internet Connection.....	61
Figure 6.8: Type of Internet Connection .....	62
Figure 6.9: Mobile Money Transfers Subscription and Mobile Money Banking Platform .....	62
Figure 7.1: Distribution of households Renting/ Provided with the main dwelling unit by Provider	66
Figure 7.2: Has your household paid the rent for April 2020 on the agreed date.....	67
Figure 7.3: Proportion of Residents Paying Rent per Terms of Contract .....	67
Figure 7.4: Reasons for not Being Able to Pay Rent.....	68
Figure 7.5: Measures Taken by Household to Mitigate COVID-19 Effects on Rent .....	68
Figure 9.1: COVID-19 Testing, 2020.....	80
Figure 10.1: Access to ICT in Households and Schools .....	90
Figure 12.1: Effects of COVID-19, 2020 .....	100
Figure 12.2: Difference between usual hours worked and actual hours worked during COVID-19 period.....	100

## Abbreviations and Acronyms

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

## Acknowledgements

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

## Executive Summary

### Fiscal Policy

Narok total County revenue has significantly grown by 189 per cent from Ksh 5.70 billion in 2013/14 to Ksh 16.47 billion in 2018/19, an average annual growth rate of 27 per cent. However, in 2019/20 and 2020/21, the county experienced a decline in its total revenue to Ksh 10.99 billion and Ksh 10.26 billion respectively due to significant decrease in its OSR. Conditional grants are also a major source of revenue for financing county operations and has been growing over the years. The County receives conditional grants from the National Government and development partners mainly from World Bank and Danish International Development Agency (DANIDA), European Union (EU) and Sweden. In FY 2020/21, the County experienced a significant decline in OSR, contributing only 6.03 per cent to the total revenue compared to 21.34 attained in 2019/20. In 2019/20 pending bills slowed to Ksh. 472.7 million before shooting up to Ksh 1,146.8 million at the end of 2020/21. Actual expenditure in the county increased from Ksh. 4,232.7 million to Ksh. 10,631.3 million in 2019/20 before slowing to Ksh 8,872.8 million in 2020/21, an average annual growth rate of 15.66 per cent. Pending bills related to development have been greater than those related to recurrent expenditure on average accounting for 61.0 per cent of the pending bills portfolio. To ensure continued recovery, the county to quickly tackle the problem of pending bills, mobilize more finances from OSR to increase the available revenues for budgetary operations, seek for more funding in form of grants from development partners to cater for the critical development projects in the county and ensure that the ongoing projects are completed before launching new project and clear any pending bills and arrears owed to suppliers. In addition, the Narok County to mobilize more finances from OSR to increase the available revenues for budgetary operations and seek for more funding in form of grants from development partners to cater for the critical development projects in the county.

### Agriculture, Livestock and Fisheries

Livestock and crop production in Narok County account for a significant share of the economic activity in the County. Key agricultural value chain commodities in the County include: - maize, beans, kales, potatoes, onions, sweet potatoes, bananas, cabbages, sorghum, avocado, mangoes, tree tomatoes, watermelons, pawpaw and purple passion fruits, cattle, sheep, goats, donkeys, poultry production and bee keeping (apiculture). Among the socioeconomic effects on the COVID-19 pandemic on the agri-food sector in the County included negative effects on hours worked by in agriculture related occupations. An additional effect was a slow down on trade and marketing activities due to the restrictions on movements leading to price shocks and shortages of food items. Agricultural productivity in the County is also affected by:- variable and extreme weather events; invasive species on

crop and pasturelands; water scarcity; dependence of rain fed agriculture; unsustainable natural resources management practices ; low adaptive capacity of farmers to climate change ; poor and inadequate infrastructure affecting marketing activities; 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. To successfully build resilience and enhance growth of the agriculture sector, the County to: explore partnerships to develop agro-processing and value addition capacities at the County; expansion of water harvesting projects and sustainable irrigation; invest in storage and cooling facilities; link farmers to diverse product markets; strengthen the County's institutional capacity in disaster surveillance and management; adoption of modern farming technologies and practices; adopt sustainable land management practices; enhance access to agricultural finance; enhance farmers access to critical agricultural inputs and services and build their technical capacity to act on information obtained; provision of storage and cooling facilities; and strengthen agricultural cooperatives to enhance marketing.

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

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

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

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

package for businesses and traders hard-hit by the effects of COVID-19 in the short run. The emergency Fund, supported by development partners and other stakeholders, was used to identify and support the most vulnerable businesses and entrepreneurs affected by COVID-19. Related, the County will inject some stimulus to cushion the businesses and traders through affordable credit; waiver of some County taxes, cess, and other charges; COVID-19 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; Establishments in the county will adopt to the new pandemic guidelines including rearranging floor plans to allow for social distancing; Establish timber processing industries in the county; Introduce the production and planting of fruit and agroforestry trees under the Operation Make Narok Green Again (OMENGA); Provide incentives to industries keen on investing in value addition - milk processing, potato plant, and maize milling; Create linkages between industries and Vocational training colleges in the County.

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

The main means of transport used in the County is bicycle (*boda boda*) at 32.13 per cent. The paved County Road network covers 22.57km, while the paved National roads cover 220.36km. Out of the total paved road network of 242.93km, 83.36 per cent is in good condition, 4.26 per cent in fair condition and 2.64 per cent in poor condition. The status of ICT access and use in the county is low, especially among households. The lack of knowledge and skills on internet, the high cost of equipment and services and the perception that the household does not need internet are the leading reasons that the people of in the County do not have internet connection. The housing tenure is predominantly owner occupied at 76.9 per cent, with 23.1 per cent of the households under rental tenure Majority of the households (76.3%) did not receive a waiver or relief on payment of rent from the landlord, with 14.5 per cent reporting a partial waiver, despite inability to pay due to the pandemic. In addressing the prevailing challenges, the county to focus on increasing the share of unpaved roads in good and fair condition to above 62 per cent which is the national average. Adopt programmes to ensure ubiquitous access to reliable and affordable internet (Internet everywhere) by applying aerial and satellite-based communication technologies due to the vast nature of the county. 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.

### **Tourism**

The main tourist attractions in Narok County include Physical attractions / nature-based tourism: Cultural and heritage tourism (Rich Maasai culture: Wildlife tourism (Game drives; Maasai Mara National Reserve with 95 species of mammals, amphibians and reptiles and over 420 bird species; The annual wildebeest's migration) alone involves over 1.5 million animals arriving in July and departing in November. Narok County is well endowed with accommodation facilities. Within the Mara game reserve, there are 28 star-rated hotels, lodges, and camps with a total capacity of 890 rooms and 1794 beds. The county also has

potential for enhancing tourism in the following areas which remains unexploited, Sport tourism, Ecotourism and Cultural tourism. Accommodation and food services accounts for 4.5 per cent of the total GCP, while revenue collection from tourism activities in the Maasai Mara Game Reserve accounts for approximately KSh.900 million (or 90 per cent) of total revenue collection in the County annually. Several constraints affect growth of tourism sector in the county include lack of an efficiency monitoring and evaluation system in the county government department; there is no requisite capacity to track progress, both at outcome level and programme and project implementation; human-wildlife conflicts because of increased competition for pasture and loss of biodiversity within the Maasai Mara National Reserve and the surroundings. Deforestation, rampant land subdivision and fencing of wildlife corridors also restricts the free movement of wildlife. The declining number of wildlife due climate change and declining levels of Mara River has become a threat to sustainability of the reserve. Reduction foliage due adverse weather conditions and human activity affects wildlife migratory corridors. To ensure the revenue from the game reserve continues to flow the county need to continue investing in infrastructure improvement in the park, programmes and strategies towards reducing encroachment in the park and game reserve areas, demarcation policies, incentives programmes to the communities who give up land for wildlife and programmes on reforestation and environmental conservation.

## **Health**

In 2019/2020, the number of health facilities in the county were 207 which comprised of 196 primary health facilities and 11 hospitals. This was an improvement from a total of 122 health facilities in the previous year, 2018. The number of beds per 10,000 population is 18 against the WHO recommendation of 30 beds per 10, 000 population. The National Hospital Insurance Fund (NHIF) was the leading health insurance provider reported by 90.7 per cent of the population. Employer contributory insurance cover was reported by 2.8 per cent of the population. The county had 55.8 per cent of the children aged 12-23 months were fully immunized against measles at 9 months while 26 per cent were fully immunized against measles at 18 months. A substantial budget reallocation towards cushioning the county from the COVID-19 effect. Through a supplementary budget, 160 million was reallocated towards cushioning the county from COVID-19 effects. The county government enhanced the capacity of health sector by increasing the number of personnel (nurses and medical staff) and equipping all health facilities in preparation of any cases reported and ensure the medical staff don't strain and able to run the normal daily tasks. In line with the health status in the county, some of the recommendations that need attention include the following: The county to create awareness on availability and importance of free maternity services and address other constraints to access of maternal health services in the county to address risk of contracting COVID-19 in event of visiting any health facility; To reduce high burden of both communicable and non-communicable disease, the county should revamp its Community Health Strategy. This is a community based promotive and preventive health services strategy. To make this more effective, the County should engage Community Health Volunteers (CHVs) and equip them with the relevant resources and skills.

## **Education training**

About 93.3 per cent of public primary schools in Narok County have been installed with ICT infrastructure and devices under the Digital Literacy Programme (DLP). The Gross Attendance Rate (GAR) for pre-primary school was 90.6 per cent while that of primary school and secondary school was 104 and 37 per cent respectively in 2015/16. The transitional rate at this level of education stands at 59 per cent though completion rate is relatively high at an average of 80 per cent. This implies that 21 per cent of pupils who complete primary school education do not proceed to secondary school. There are several constraints in the education sector. The main one right now is COVID-19 which has led to closing of schools. This has disrupted education calendar posing a great challenge to both county and national government. The national government announced that the education calendar 2020 was a waste. Closure of all schools has led to loss of learning time and teaching time. The school infrastructure in the County is not only limited but also is of poor quality. The county will prioritize projects that improve school water, sanitation and hygiene facilities and management in order to reduce future effect of similar or related outbreak while promoting public health in learning institutions, promote remedial/catch up lessons for learners who might have lagged behind also schools to utilize ICT platforms and have a repository of teaching and learning materials that learners could use at their own time and while at home, provide financial or in-kind support, such as school feeding, to help families overcome the increased costs of attending school, also provide psychosocial support to teachers and learners and fight drug and substance abuse among the youths in the county. This can be done through counseling and ensuring that they are not idle especially this period when learning institutions are locked.

## **Social Protection**

The overall poverty rates in the county stand at 76 per cent which is higher than the national average of 36.1 per cent. The county's food poverty levels are at 23 per cent and 22 per cent of the total population is multidimensionally poor. Severe shocks have had negative impact to the household's economic and social welfare of county residents. Children in the county also become vulnerable due to domestic challenges like poverty, domestic violence, Female Genital Mutilation, pupil's teachers' relationships, rape and forced early marriage and discrimination against children with disability. Loss of jobs and business opportunities led to an increase in poverty and declining of people welfare. Households in the county received various forms of social assistance or transfers or gift either in form of a good, service, financial asset, or other asset by an individual, household or institution. Transfers constitute income that the household receives without working for it and augments household income by improving its welfare. Cash transfers include assistance in form of currency or transferable deposits such as cheque and money orders. COVID-19 exposed lack of preparedness among counties in terms of responding to the emergencies such as COVID-19 pandemic. It provided an opportunity to measure how county governments are prepared to handle the devolved functions. 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 Narok County government will conduct mass civic education among the people on COVID-19



prevention measures, how to handle an infected person and avoidance of stigmatization of the affected person, enroll more county residents in welfare programmes such as NHIF which will ensure that they access medical treatment in case of falling sick and give tax exemption for the SMES who have suffered losses in their business as result of diseases outbreak.

## **Labour Participation**

The main economic activities in the county are Pastoralism, agriculture, and trade. During COVID-19, workers employed by school Board of management (BOM) lost their jobs as well as those employed by Private schools as the schools could not sustain their salaries due to closure of schools. Public schools have also faced challenges in making payment for the other expenses such as electricity and security bills. The unemployment has increased during the period of COVID-19, according to May 2020 KNBS COVID-19 Survey, 19.4 per cent of the county labour force worked at least for 1 hour for pay; 5.6 per cent had never worked, and 75.0 per cent worked in the informal sector. The Narok County government to promote implementation of stronger labour market interventions and policy reforms that drive employment creation. The County to deepen technical education, training and skills development; and invest in livestock sector in the County, promote investment and entrepreneurship through provision of loans, the county Government to improve access to finance for small and medium enterprises through lending institutions and formulate measures aimed at encouraging employment creation through corporate social responsibility (CSR), including expanding the national internship programs and promoting Information Technology (IT) enabled jobs.

# 1. Introduction and Structure of Narok County Economy

## 1.1 Introduction

Narok County is one of the counties in Narok-Kajiado Economic Bloc (NAKAEB). The county occupies a land area of 17,933.1 Km<sup>2</sup>. The county has an estimated population of 1,157,873 people of whom 49.3 per cent were male and 50.6 per cent female (KNBS, 2019) as indicated in table 1. Of the population 9,046 (0.9 per cent) were persons with disabilities. The youth constituted 33.0 per cent of the population of whom 51.0 per cent were female. The County has a population density 65 per km<sup>2</sup>. The elderly population (age 65 years and above) made up 2.4 per cent of the total population of whom 51.6 per cent were female. The population in school going age group (4-22 years) was 52.7 per cent in 2019.

In 2015/2016, the overall poverty rate in Narok County was 23.0 per cent against the national poverty rate of 36.1 per cent. In addition, 22.4 per cent of the population were living in food poverty and 75.8 per cent were living in multidimensional poverty, that means being deprived in several dimensions including health care, nutrition, and adequate food, drinking water, sanitation and hygiene, education, knowledge of health and nutrition, housing and standard of living, and access to information. According to KDHS 2014, 32.5 per cent of the children were stunted as compared to the average national level at 26.0 per cent.

**Table 1.1: Development indicator in Narok County**

	County	National
Estimated County Population (KNBS, 2019)	1,157,873	1.3% of the total population
Males		49.3%
Females	579,042	50.6%
Intersex	578,805	0.002%
	26	
Estimated Population Density (km <sup>2</sup> )	65	82
Persons with disability	0.9%	2.2%
Population living in rural areas (%)	91.3%	68.8%
Children (0-14 years) (%)	50.0	41.1%

School going age (4-22 years) (%)	52.7%	68.7%
Youth 15-34 years (%)	33.0%	36.1%
Labour force (15-64 years) (%)	47.8%	55.0%
Elderly population (over 65-year-old)	2.4%	3.9%
Number of COVID-19 cases (as of 11 <sup>th</sup> September 2020) (MOH); National cases were 35,232 people	226	0.68% of the national cases
Poverty (2015/2016) (%)	23.0%	36.1%
Food Poverty (2015/2016) (per cent)	22.4%	31.9%
Multidimensional Poverty (2015/2016) (per cent)	75.8%	56.1%
Stunted children (KDHS 2014)	32.5%	26%
Gross County Product (Ksh million) 2020	166,662	1.6% Share to total GDP
Average growth of nominal GCP (2013-2020) (%)	16.6%	104.8%

Data Source: KNBS (2019)

The age distribution of the county residents as per the 2019 Housing and Population Census is shown in Table 1.2. The bulk of the County's population is in the age group of between 15-34 years comprising of 320,274 individuals. They are followed by persons aged between 6-13 years who are the primary school children comprising of 204,211 of the county population. The under 0-3 age comprise of 86,495 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	43,690	42,805	86,495
Pre-primary school age (Under 4-5)	25,010	23,319	48,329
Primary School Age (6 -13)	102,987	101,224	204,211
Secondary school age (14-17)	49,305	47,853	97,158
Youth Population (15-34)	154,058	166,216	320,274
Female Reproductive age (15-49)		217,070	217,070
Labour force (15-64)	235740	243317	243,317
Aged Population 65+	13,921	17,899	31,820

Data Source: KNBS (2019)

## 1.2 Level of Socio-Economic Deprivations

In 2015/2016, 9.2 per cent of the population had health insurance cover, 24.7 per cent lived in premises with water, 62.1 per cent lived in their own homes and 64.4 per cent had access to mobile telephone (Table 1.3) and majority of the households (68.3%) had access to toilet facility. As a result, the multi-dimensional poverty is 75.8 per cent

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

Indicator	Details	Percentage Distribution (%)
Health care	Population with Health Insurance Cover	9.2
Drinking water (Time taken to fetch)	Zero (In premises)	28.5
	less than 30 minutes	45.5
	30 minutes or longer	25
Sanitation and Hygiene	Proportion of households with toilet facility	68.3
	Shared Toilet	59.4
	Not Shared	40.6
	Place to wash hands outside toilet facility	7.5
	No place to wash hands outside toilet facility	91.1
Education (Population 3 years and Above by School Attendance Status)	Ever Attended	80.5
	Never Attended	19.2
Knowledge of health and nutrition (children aged 0-59 months that participated in Community Nutrition Programmes)	Participated in Community Nutrition Programmes	63.8
	Did not Participated in Community Nutrition Programmes	35.9
Housing and standard of living (house ownership)	Owner Occupier	62.1
	Pays Rent/ Lease	31.5

Access to information (Population Aged 3 years and above by ICT Equipment and Services Used)	Television	19.7
	Radio	66.9
	Mobile phone	64.4
	Computer	4.2
	Internet	9.8

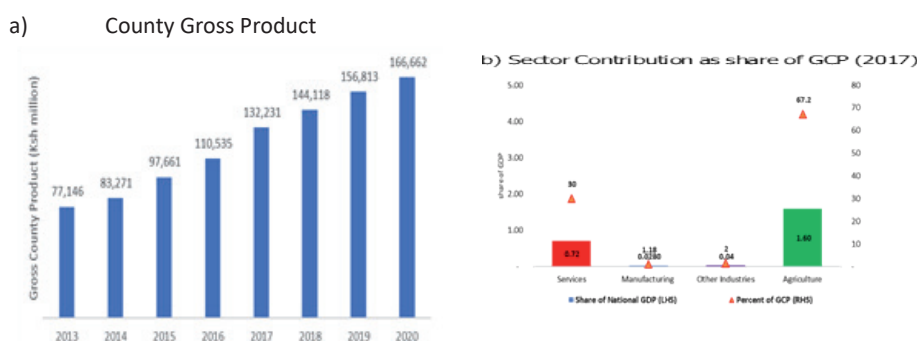
Source: KIHBS 2015/2016

### 1.3 Structure of Narok County Economy

Narok County Gross County Product (GCP) accounted for 1.6 per cent of total Gross Domestic Product (GDP) between 2013 and 2020 (figure 1). The GCP increased from Ksh 77,146 million in 2013 to Ksh 166,662 million in 2020 representing an average annual growth rate of 16.6 per cent.

The services sector includes such activities as wholesale and retail trade, construction, and transportation and storage. Agriculture is mainly dominated by livestock farming and both small scale and large-scale crop farming; with the main crops being maize and wheat.

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



Data Source: KNBS (2021)

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

As of March 2020, Narok County had zero cases. However, by August 2020, the County had reported 43 COVID-19 cases with mobility stringency of 70.4. The caseload would rise to 583 by August 2021 with mobility stringency of 56.0. The mobility stringency index is a composite measure rescaled to a value from 0 to 100 (100=strictest) based on nine response mobility indicators. The nine metrics used to calculate the mobility stringency index include school closures, workplace closures, cancellation of public events, restrictions on public gatherings, closure of public transport, stay-at-home requirements, public information campaigns, restrictions on internal movements and international travel controls. An index

measure closer to 100 means high incidence or severity of mobility restrictions. The County mobility stringency index implies the severity of the restrictions was moderate.

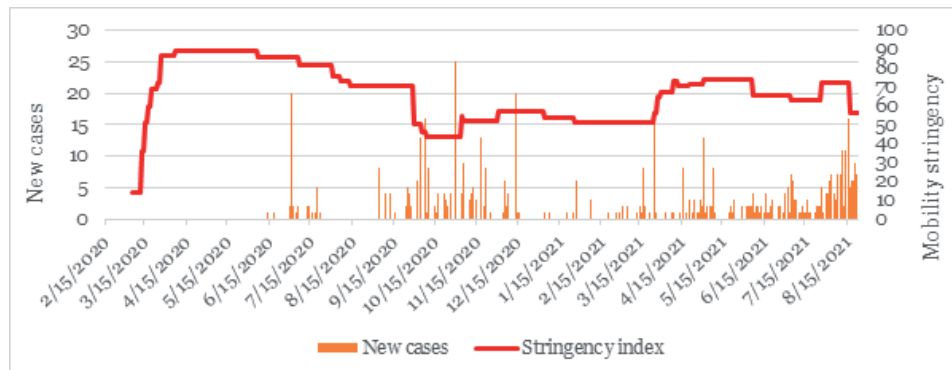
**Table 1.4: Total COVID-19 cases in Narok County and the country's mobility stringency**

Date	Total cases	Mobility stringency (0-100)
13 <sup>th</sup> March 2020	0	36.1
23 <sup>rd</sup> August 2020	43	70.4
23 <sup>rd</sup> August 2021	583	56.0

Data Source: Oxford University

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

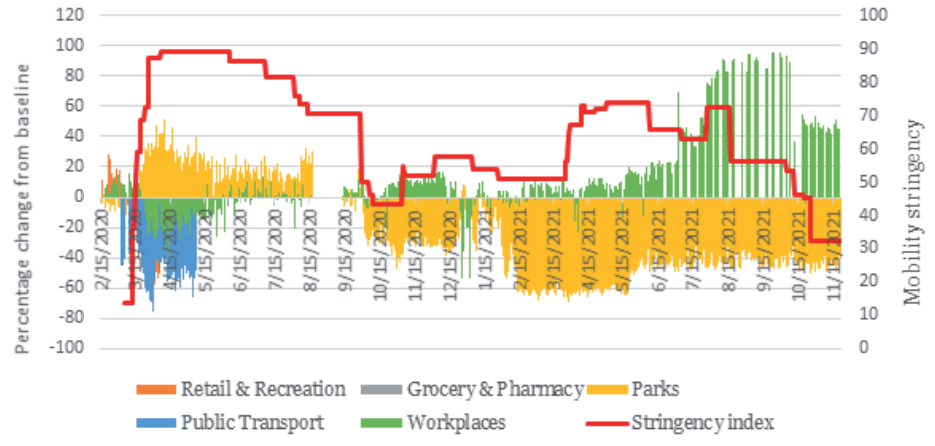
**Figure 1.2: New COVID-19 cases in Narok County and the country's mobility stringency**



Data Source: Oxford University

Demand for public transport, workplaces, and parks have been the most hit by tighter mobility restrictions in Narok County. Demand for workspaces, however, has been resilient between October 2020-November 2021.

**Figure 1.3: Effects of COVID-19 on Narok County economic performance and the country’s mobility stringency**



Data Source: Oxford University

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

## 2. Fiscal Policy

Availability of financial resources is critical in implementing county operations. Timely and adequate funding aid in successful implementation of the county's projects. The County's main revenue sources comprise of the transfers from the National Government, Conditional Grants and its own source revenue (OSR).

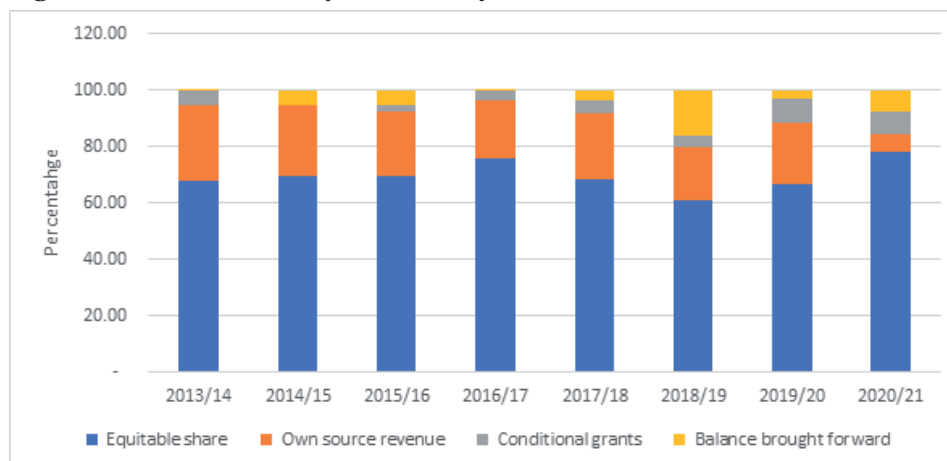
### **Transfers from National Government**

The county total revenue has significantly increased over the years as the Government focus on enhanced services to the citizens. Narok total County revenue significantly grew by 189 per cent from Ksh 5.70 billion in 2013/14 to Ksh 16.47 billion in 2018/19, an average growth rate of 31.5 per cent. However, in 2019/20 and 2020/21, the county experienced a decline in its total revenue to Ksh. 10.99 billion and Ksh 10.26 billion respectively due to significant decrease in its OSR. The amount realized in 2020/21 was 87.9 per cent of the annual budget allocation of Ksh 11.67 billion, a slight decline from 91.6 per cent attained in 2019/20. The decrease was attributed to significant decline in OSR generated in 2020/21.

Analysis of the sources of revenue indicate that equitable share from the National Government has been the main source of county funding accounting for more than 61 per cent of the total revenues over the years (figure 2.1). The share of equitable share averaged 69.72 per cent between 2013/14 to 2020/21. Equitable share has significantly grown by 107.86 per cent from Ksh 3.87 billion in 2013/14 to Ksh 8.04 billion in 2020/21. During 2020/21, the County received 100 per cent of the annual budget allocation, significant improvement from 91.4 per cent received in 2019/20, accentuating the commitment of the National Government to support county operations through timely financing.



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



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

Monthly cash transfers from the National government have had an increasing trend from January to June over the years as shown in table 2.1. A similar trend was observed in 2020 with the transfers growing by 166.16 per cent from Ksh. 2.93 billion in January to Ksh. 7.79 billion in June. In comparison to 2019, the total amount transferred to Narok County in January, February, March, April, May, and June of 2020 increased by 13.91 per cent from Ksh 6,837.52 million to Ksh 7,788.57 million. The increase in the cash transferred to the county was a welcome move to enable it to finance its budgetary operations as well as implementing the measures needed to curb the adverse effects of COVID-19 pandemic.

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

Month Year	January	Feb	March	April	May	June	July	August	Sept
<b>2021</b>	4,283.44	4,990.62	-	-	-	-	2,211.20	-	-
<b>2020</b>	2,926.27	3,736.46	4,580.56	5,340.80	6,091.13	7,788.57	2,017.81	2,701.14	3,550.05
<b>2019</b>	3,246.17	3,266.37	3,882.86	4,966.47	5,558.28	6,837.52	5,558.28	2,088.07	2,916.52
<b>2018</b>	3,347.49	3,376.84	4,536.40	5,058.25	5,662.82	6,804.72	1,375.56	2,023.91	2,736.24
<b>2017</b>	-	-	4,307.81	4,792.80	5,258.20	5,714.66	1,500.34	-	-
<b>2016</b>	-	-	3,111.31	4,010.26	4,882.76	4,882.76	-	-	-

Data source: Gazette Notice (Various issues)

## **Conditional grants**

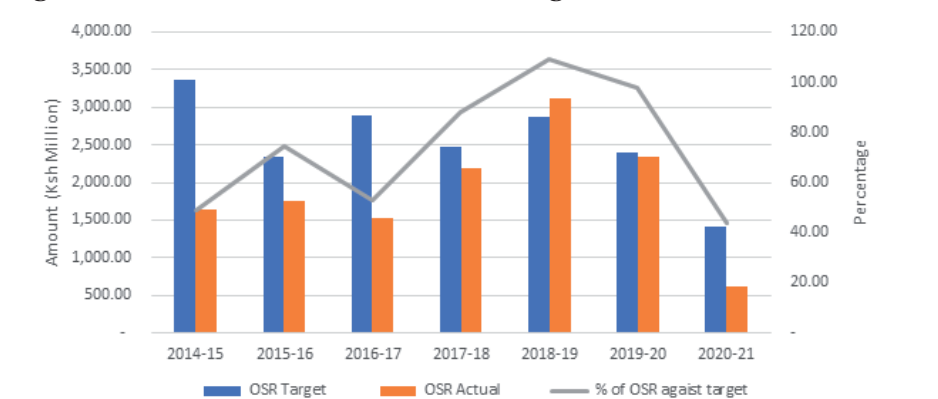
Conditional grants are also a major source of revenue for financing county operations and has been growing over the years. The County receives conditional grants from the National Government and development partners mainly from World Bank and Danish International Development Agency (DANIDA), European Union (EU) and Sweden. During 2020/21, the County received Ksh 248.93 million and Ksh 566.02 million from National Government and Development partners respectively. The contribution of conditional grants to total revenue has been stable and maintained an increasing trend from 0.23 per cent in 2014/15 to 8.85 per cent during 2019/20. On average, the grants contributed 4.49 per cent of the County total revenue between 2013/14 and 2020/21. In nominal terms, conditional grants have been on an upward trajectory, increasing by 192.32 per cent from Ksh 278.79 million in 2013/14 to Ksh 814.95 million in the 2020/21. As such, it is important that the county continue with fostering good relations with development partners to sustain and increase the flow of conditional grants.

## **Own Source Revenue**

The County's OSR has similarly been a major contributor to the total revenues. The share of OSR to total revenue have been stable averaging 20.55 per cent from 2013/14 to 2020/21 (Figure 2.1). However, in 2020/21, the Country experienced a significant decline in OSR, contributing only 6.03 per cent to the total revenue compared to 21.34 attained in 2019/20.

Analysis of annual County OSR performance shows a fluctuating trend over the years with the county experiencing decreases and increases during different financial years (figure 2.2). The county generated the highest OSR amounting to Ksh 3.12 billion in 2018/19 from a low of Ksh 1.53 billion generated during 2016/17. The performance of actual OSR against its target shows an increasing trend, growing from 48.7 per cent in 2014/15 to 109.1 per cent in 2018/19 implying that the County has made significant gains in mobilizing its OSR. During 2019/20, the county generated Ksh 2.35 billion from OSR, which was 19.7 per cent decrease compared to Ksh 2.92 billion realized during 2018/19. Similarly, the County experienced a significant decline of 73.6 per cent, realizing Ksh 618.88 million, in 2020/21 compared to the performance of 2019/20. The decrease was mainly attributed to the COVID-19 pandemic which greatly impacted on revenue collection especially from the tourism sector. With the easing of the containment measures and gradual recovery of economic activities across the Country, the performance of OSR is envisaged to recover to its previous level.

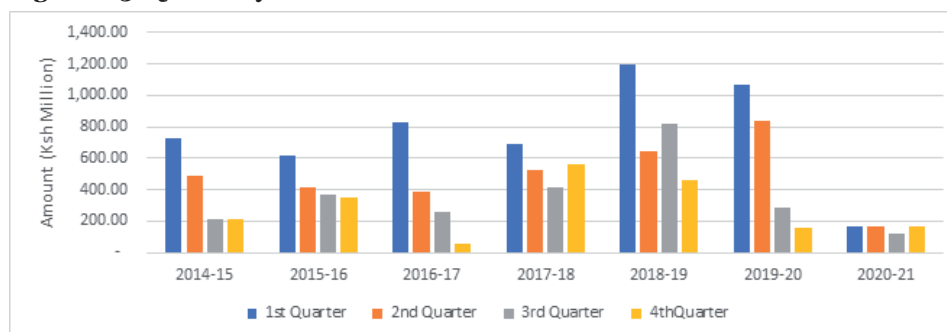
**Figure 2.2: Annual Own Source Revenue targets and actual collections**



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

Analysis of the quarterly OSR collections show that the county collections have been highest during the first and second quarters annually (figure 2.3). In the 2019/20, quarterly OSR collections declined significantly through the quarters from Ksh 1.06 billion realized during the first quarter to Ksh. 161.67 million collected during the fourth quarter. Similarly, the County experienced an all-time low quarterly performance in 2020/21. The significant decline experienced was premised on the adverse effects of COVID-19 pandemic that led to low economic activities in the county and hampered revenue collection. Specifically, the tourism sector was highly affected due to the measures instituted to curb the spread of corona virus.

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



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

## 2.1 County Expenditure Analysis

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

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

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

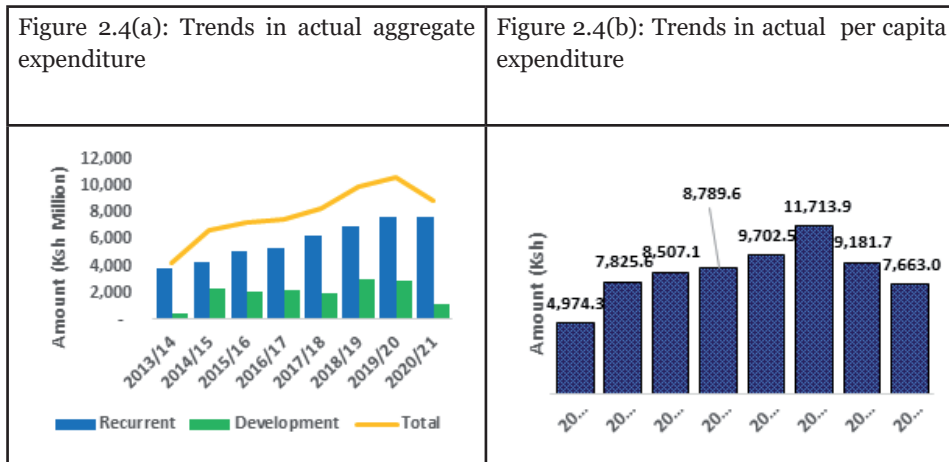
### **Trends and profile of county government expenditures**

County expenditure has over the years been rising as the county escalates its efforts in provision of services to its residents. 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 4,232.7 million to Ksh 10,631.3 million in 2019/20 before slowing to Ksh 8,872.8 million in 2020/21, an average annual growth rate of 15.66 per cent. Cumulatively the county has spent a total of Ksh 63.3 billion between 2013/14 and 2020/21. This comprises of a cumulative Ksh. 47.2 billion and Ksh 16.1 billion on recurrent and development expenditures representing 74.5 per cent and 25.5 per cent of the cumulative recurrent and development expenditure respectively. This signals that more development expenditure is required to support deepening of capital spending in the county.

---

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

**Figure 2.4: County expenditure analysis**



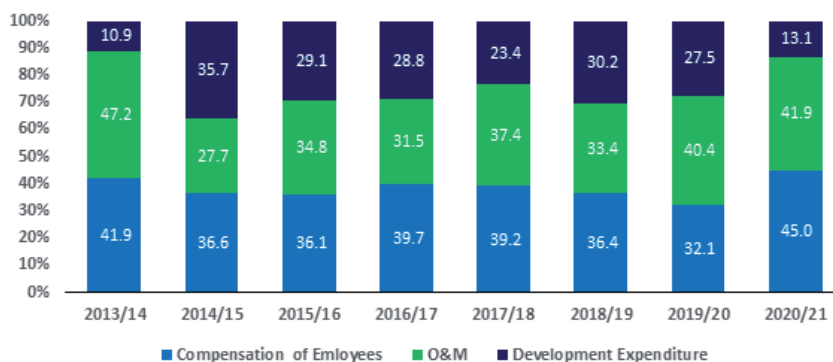
Data Source: Office of the Controller of Budget

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. 4,975.3 compared Ksh. 11,713.9 in 2018/19 and Ksh 7,663.0 in 2020/21. The average per capita spending between 2013/14 and 2020/21 stood at Ksh. 8,544.7.

### Utilization of public resources in the county

Analysis of expenditures by economic classification and by departments (spending priorities) reveal interesting insights. It is evident that since inception of devolution, the county government prioritized narrowing the economic and social infrastructure gaps. Much of government development expenditures has been dominant in provision of health services, public works, education, agriculture, as well as trade and industry.

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



*Data Source: Office of the Controller of Budget*

County development expenditure accounted for an average of 24.8 per cent of total county spending between 2013/14 and 2020/21 as represented in Figure 2.5. In 2013/14 and 2020/21 the share of development expenditure performed poorly and accounted for just 10.9 per cent and 13.1 per cent of the county expenditure respectively. On the other hand, compensation of employees has been burgeoning between 2013/14 and 2020/21. The average share of compensation to employees in total county budget over the review period was 38.4 per cent. Similarly, operation and maintenance expenditures have oscillated between 27.7 (the lowest) reported in 2014/15 and 41.9 per cent (the highest) recorded in 2020/21.

Reflecting on expenditures by functional classification (priority spending), the county spent a combined average of 64.0 per cent of the total expenditure during the period 2014/15 to 2020/21 on non-administrative services such health and sanitation services (23.6%); education, youth affairs, sports, culture, and social services (13.8 per cent); transport, public works, and infrastructure (12.8 per cent); agriculture, livestock, and fisheries (5.5%); trade, industrialization, tourism and wildlife (3.4%); environment and natural resources (2.6%); and lands, housing, physical planning and urban development (2.3%). On the other hand, during the review period coordination and administrative functions accounted for a combined 36.0 per cent with county executive leading at 9.9 per cent followed by administration and public service management at 9.0 per cent, finance, and economic planning 8.8 per cent, county assembly 7.5 per cent, while county public service board accounting for 0.9 per cent.

**Table 2.2: County departmental/priority spending**

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	Average spending	Average spending share (per cent)
Health and Sanitation	774.2	1,396.7	1,550.0	2,079.4	2,482.3	2,830.2	2,851.3	1,994.9	23.6
Education, Youth Affairs, Sports, Culture and Social Services	576.6	755.4	1,427.5	1,343.2	1,296.2	1,560.0	1,224.5	1,169.0	13.8
Transport, Public Works, and Infrastructure	1,310.0	1,334.1	954.1	1,103.1	1,130.9	978.5	741.5	1,078.9	12.8
County Executive	2,626.4	1,839.8	297.2	341.7	302.7	305.9	122.0	833.7	9.9
Administration and Public Service Management	8.7	30.7	1,014.4	1,069.6	1,160.1	1,099.1	907.8	755.8	9.0
Finance and Economic Planning	522.4	569.6	883.9	700.2	805.9	959.0	761.8	743.2	8.8
County Assembly	443.6	642.4	612.9	541.1	749.5	722.0	715.3	632.4	7.5
Agriculture, Livestock and Fisheries	126.0	296.1	216.8	504.4	858.1	717.4	504.8	460.5	5.5
Trade, Industrialization, Tourism and Wildlife	54.6	51.1	228.2	245.2	351.6	597.6	503.4	290.2	3.4
Environment and Natural Resources	141.9	127.3	133.8	96.5	402.2	387.5	232.6	217.4	2.6
Lands, Housing, Physical Planning and Urban Development	29.3	124.3	103.0	134.7	349.8	385.6	223.4	192.9	2.3
County Public Service Board	45.5	71.6	52.0	90.6	70.9	88.8	84.5	72.0	0.9
<b>Total</b>	<b>6,659.0</b>	<b>7,238.9</b>	<b>7,473.7</b>	<b>8,249.6</b>	<b>9,960.2</b>	<b>10,631.4</b>	<b>8,872.8</b>	8,440.8	100.0

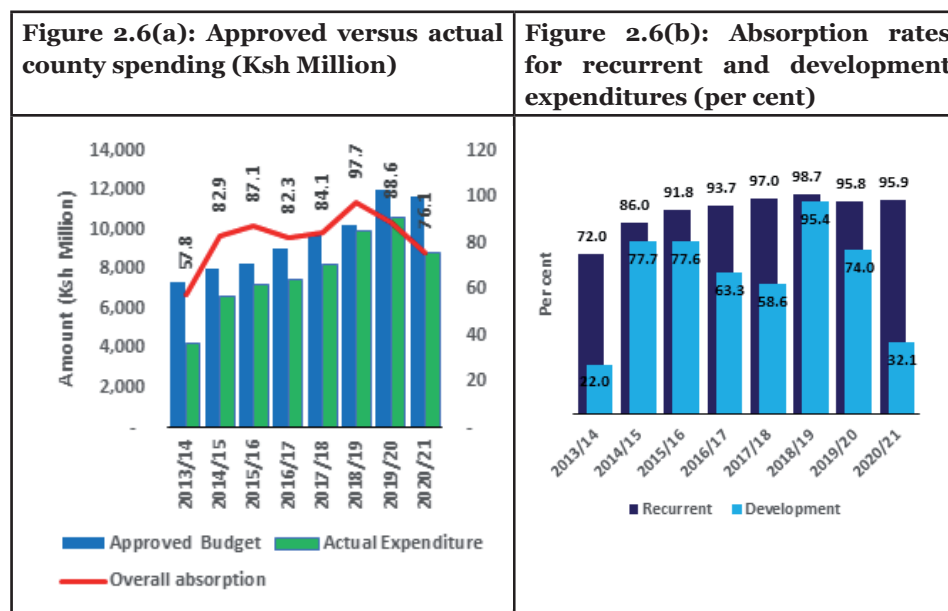
Data Source: Office of the Controller of Budget

### Effectiveness of County spending

Total budget execution averaged 82.1 per cent in the period 2013/14 to 2020/21. In 2013/14, overall total budget execution stood at 57.8 per cent. This execution improved to 97.7 per cent in 2018/19 before taking a downward trajectory in 2017/18 due and stood at 76.1 per cent the end of 2020/2, meaning that in 2020/21 only Ksh. 8,872.8 million was realized and utilized out of the approved budget of Ksh 11,665.6 million (Figure 2.6).

With regards to development budget execution in the county, the average absorption rate between 2013/14 to 2020/21 was 62.6 per cent (implying that on average about 37.4 per cent of the development budget is not absorbed). This implies existence of shortfalls budget implementation, and the county should continue tightening budget implementation to ensure achievement of greater absorption rates to keep help achieve the targets in annual development plans (ADPs) and the county integrated development plans (CIDPs). On recurrent expenditure, the execution has been robust over the years, the average absorption rate was 91.4 per cent , with about 8.6 per cent left in unspent recurrent budget.

**Figure 2.6: County approved expenditure and absorption rates**



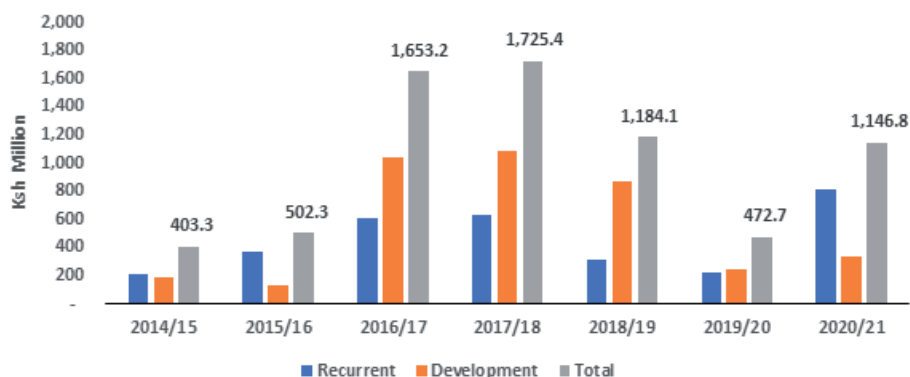
Data Source: Office of the Controller of Budget

## Pending Bills

In 2014/15 the county reported Ksh 403.3 million in pending bills. This increased to Ksh 1,725.4 million in 2017/18 with development spending related pending bills accounting for 63.2 per cent of this. In 2019/20 pending bills slowed to Ksh 472.7 million before shooting up to Ksh 1,146.8 million at the end of 2020/21. Generally, pending bills related to development have been greater than those related to recurrent expenditure on average accounting for 55.1 per cent of the pending bills portfolio. If pending bills for development spending were paid in their respective fiscal year, the execution of development budget in subsequent years would improve.



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



*Data Source: Office of the Controller of Budget*

In order to achieve its overall goal of improving lives and livelihoods of its residents, the county government must now move quickly to tackle the problem of pending bills. Increasing and persistent pending bills is a threat to the survival of the private sector particularly primary firms that trade with the county government. These firms are critical for employment creation as well as driving economic activity within the county. These bills have not only affected their profitability and overall performance but have also become a threat to private sector in general and the families that depend on these firms through ripple effect. If not well monitored these could grow and eat up on the county's already thin revenue sources.

## 2.2 Conclusions

- i. Mobilize more finances from OSR to increase the available revenues for budgetary operations.
- ii. Seek for more funding in form of grants from development partners to cater for the critical development projects in the county.
- iii. Ensure that the ongoing projects are completed before launching new project and clear any pending bills and arrears owed to suppliers.
- iv. 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.
- v. Improve budget execution and absorption of development budget by harmonizing project implementation cycles to budgeting and fast-track exchequer releases.
- vi. Reduction of expenditure on compensation of employees within the PFM requirement since ballooning compensation of employees potentially affects execution of key development programs especially if not brought to sustainable levels.
- vii. Monitoring and prompt payment of pending bills as they limit execution of planned activities in subsequent budgets.

## 3 Agriculture, Livestock and Fisheries

### 3.1 Characteristics of the Sector

Agriculture accounts for the largest share of economic activity in Narok County. More than a half of County economic activity is driven by the agriculture sector. In 2017, agriculture accounted for Ksh 120,355 million out of the total Ksh 179,226 million Gross County Product (GCP) amounting to 67.2 per cent of the County's GCP. Over 70 per cent of the households in Narok County practice farming. About 62.4 per cent of the households produce crops and livestock, 0.28 per cent practice aquaculture and about 0.35 per cent are involved in fishing. About 2.88 per cent of the households practice irrigation farming.

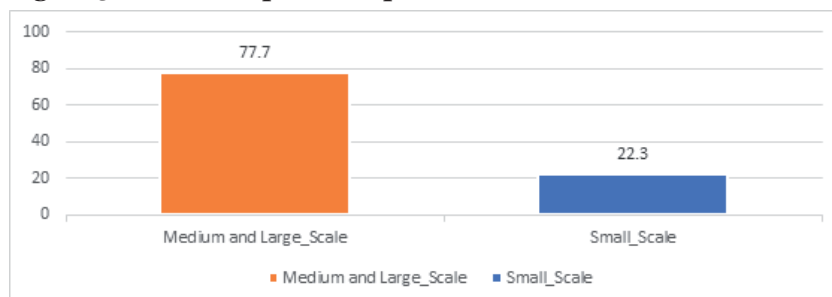
**Table 3.1: Distribution of households practicing agriculture, fishing and irrigation by County and Sub-County**

County/Sub County	Total Households	Farming Households	Crop Production	Livestock Production	Aquaculture	Fishing	Irrigation
Kenya	12,143,913	6,354,211	5,555,974	4,729,288	29,325	109,640	369,679
Narok	241,125	181,706	150,426	150,415	687	848	6,948
Narok East	25,078	19,206	16,634	14,591	122	72	761
Narok North	59,996	35,447	32,841	26,307	154	161	1,128
Narok South	46,723	40,248	34,075	35,078	143	178	3,955
Narok West	38,658	30,259	16,671	27,534	95	166	475
Trans Mara East	20,506	18,907	18,117	16,205	79	83	205
Trans Mara West	50,132	37,639	32,088	30,700	94	188	424
Mau Forest	32	-	-	-	-	-	-

*Source: 2019 Kenya Population and Housing Census*

On the scale of production, the FAO criterion on land size is used to identify small holder farmers as those producers that “fall in the bottom 40 per cent of the cumulative distribution” (Khalil et al., 2017). Using this criterion, about 22.3 per cent of the farming households in Narok County are “small-scale” farming with a land holding of 0.675 or less acres of land.

**Figure 3.1: Scale of operation: per cent of households**



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

The County is classified in the Rift Valley ASALS agro-ecological zone as per the Agricultural Sector Transformation and Growth Strategy (ASTGS) 2019-2029, suitable for mixed staples, cash crops and livestock including maize, wheat, sorghum, Irish potatoes, honey, goats, sheep, chicken and dairy cattle. An overall analysis of the County agricultural production indicates among the top food crops produced by households in Narok include maize, beans, kales, potatoes, onions, sweet potatoes, bananas, cabbages and sorghum.

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

County/Sub County	Narok	Narok East	Narok North	Narok South	Narok West	Transmara East	Transmara West
Maize	136,075	15,197	26,210	32,036	15,531	17,307	29,794
Beans	94,779	12,116	12,744	26,647	11,761	13,083	18,428
Kales	59,672	4,560	14,384	12,348	5,942	9,404	13,034
Potatoes	53,966	7,917	22,506	13,943	2,459	3,610	3,531
Onions	50,324	5,393	14,448	10,892	5,786	5,293	8,512
Sweet Potatoes	28,542	526	630	4,407	5,420	12,830	4,729
Bananas	27,875	539	657	7,903	3,484	6,715	8,577
Cabbages	26,070	3,301	10,032	6,729	1,279	1,991	2,738
Sorghum	23,325	74	199	4,402	5,878	8,272	4,500
Sugarcane	18,862	203	332	3,921	2,369	4,507	7,530
Tomatoes	17,566	1,201	1,422	5,766	2,508	2,976	3,693
Millet	14,622	70	201	4,443	2,119	2,985	4,804
Wheat	13,437	2,182	6,556	2,261	1,081	487	870
Green grams	4,439	803	1,382	1,393	473	142	246
Cassava	2,634	99	179	463	333	563	997
Watermelons	1,302	145	201	254	112	109	481
Ground Nuts	1,268	137	200	263	84	121	463

Source: Kenya Population and Housing Census, 2019

Key permanent crops among households in Narok include Avocado and Mangoes.

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

County/Sub County	Avocado	Citrus	Mango
Narok	13,430	1,784	2,332
<b>Kenya</b>	<b>966,976</b>	<b>177,445</b>	<b>796,867</b>

Source: 2019 Kenya Population and Housing Census

Resource productivity is another key important factor in determining the agro-processing potential (scale) of the County and would have a great impact on farmers' incomes and the County's GCP. An assessment of horticultural productivity indicates Narok's value of fruits production in 2019 amounted to Ksh 590.65 million. The area under fruit was 1,148 Ha with a production of 13,576 MT. The major fruits grown in order of value importance are tree tomatoes, banana, watermelons, paw paw, purple passion fruits and avocado.

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

Type of Fruit	Area in Ha	Production in Tons	Value in Shillings
Tree Tomato	166	2,086	179,560,000
Banana	325	4,976	130,200,000
Watermelons	78	2,060	100,500,000
Pawpaw	53	934	65,400,000
Purple Passion Fruits	157	1,180	47,540,000
Avocado	209	1,283	29,880,000
Apples	10	80	8,000,000
Plums	24	210	6,000,000
Pears	20	160	6,000,000
Mango	22	207	5,530,000
Oranges	29	152	3,880,000
Pineapples	17	92	3,380,000
Peaches	6	41	2,100,000
White Sapote	14	42	1,020,000
Lemons	12	49	936,000
Tangerines	6	24	720,000
<b>Total</b>	<b>1,148</b>	<b>13,576</b>	<b>590,646,000</b>

Source: Agriculture and Food Authority, 2019

In 2019, the value of vegetables production in the County amounted to Ksh 7.3 billion. The area under vegetables was 19,614 Ha with a production of 621,929 MT. The major vegetables grown in order of value importance are tomato, potato, cabbages, kales, spinach, garden peas, leaf amaranth, African nightshade and carrots.

**Table 3.5: Vegetables Grown in Narok County**

Type of Vegetables	Area in Ha	Production in Tons	Value in Shillings
Tomato	1,682	35,169	2,290,490,000
Potato	11,527	341,686	1,806,591,297
Cabbage	2,031	101,240	1,219,111,000
Kales	1,498	73,200	805,410,000
Spinach	917	47,043	474,810,000
Garden Peas	565	3,291	143,110,000
Leaf Amaranth	254	5,770	125,950,000
African Nightshade	184	3,425	102,900,000
Carrots	338	3,330	100,450,000
French Beans	314	2,515	95,500,000
Spider Plant	179	2,385	62,450,000
Snow Pea	55	2,275	16,500,000
Snap Peas	30	160	9,600,000
Butter Nut	6	120	6,000,000
Cowpea	9	95	2,750,000
Pumpkin Fruit	25	225	1,250,000
<b>Total</b>	<b>19,614</b>	<b>621,929</b>	<b>7,262,872,297</b>

Source: Agriculture and Food Authority (2019)

In 2019, the value of MAPs production in the County amounted to Ksh 428.980 million. The area under MAPs was 1167 Ha with a production of 11,511MT. The major MAPs grown are Bulb Onion, Spring Onion/Green Shallots and Garlic.

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

Type of Medicinal and Aromatic Plants (MAPs)	Area in Ha	Production in Tons	Value in Shillings
Bulb Onion	825	7,795	331,000,000
Spring Onion/Green Shallots	325	3,640	89,280,000
Garlic	13	58	7,280,000
Long Cayenne Chilies	4	18	1,420,000
<b>Total</b>	<b>1167</b>	<b>11,511</b>	<b>428,980,000</b>

Source: Agriculture and Food Authority, 2019

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

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

County/Sub County	Narok	Narok East	Narok North	Narok South	Narok West	Trans Mara East	Trans Mara West
Indigenous cattle	114,651	9,837	18,493	25,658	22,226	12,801	25,636
Indigenous chicken	95,746	8,256	15,082	19,979	15,331	13,906	23,192
Sheep	86,756	10,745	19,403	19,019	16,849	5,877	14,863
Goats	65,365	7,835	8,386	17,658	17,535	3,343	10,608
Donkeys	50,087	5,723	13,724	10,691	5,755	2,411	11,783
Exotic cattle Dairy	19,843	2,188	3,827	6,456	2,317	2,059	2,996
Beehives	10,552	585	1,202	2,383	1,696	1,569	3,117
Exotic cattle Beef	7,266	845	1,595	1,999	1,191	540	1,096
Exotic Chicken Layers	4,169	345	834	998	817	450	725
Exotic Chicken Broilers	2,245	245	456	591	413	171	369
Rabbits	723	57	153	226	108	115	64
Fish Ponds	620	113	141	122	84	71	89
Pigs	169	39	55	30	15	10	20
Camels	142	10	23	51	23	16	19
Fish Cages	118	19	25	24	20	19	11

Source: 2019 Kenya Population and Housing Census

The above characterization of farming households highlights the priority value chain opportunities in maize, beans, kales, potatoes, onions, sweet potatoes, bananas, cabbages, sorghum, avocado, mangoes, tree tomatoes, watermelons, pawpaw and purple passion fruits, cattle, sheep, goats, donkeys, poultry production and bee keeping (apiculture). With majority of the households farming the identified products, the current Narok transformation strategy in agriculture should prioritize value chains in the identified areas to positively impact of households' livelihoods.

## Agri-Food Challenges in COVID-19

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

Agricultural labor participation in Narok indicates relative dominance by males in the agricultural, fisher and related labourers sub-group which is the key agriculture related occupation in the County. Workers in this sub-category include Farmhands and Related Labourers; Forestry Labourers; and Fishery, Hunting and Trapping Labourers. The classifications are based on the Kenya National Occupational Classification Standard (KNOCS).

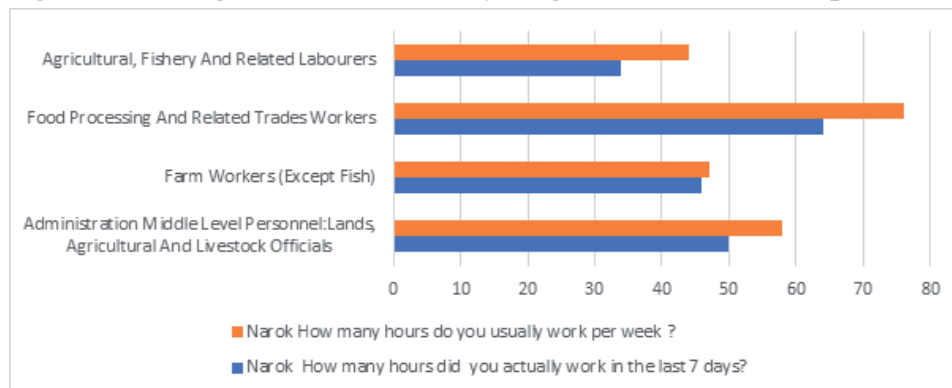
**Figure 3.2: Agriculture related labour force participation**



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

An assessment of the COVID\_19 effects on hours worked by in agriculture related occupations indicates workers in all the identified sub-sectors worked fewer hours in the reference period as compared with the usual hours worked per week. The most affected workers are the food processing and related trades workers who recorded the highest difference of 12 hours between the usual and actual hours worked in a week. Occupations in this sub-major group include Butchers, Fishmongers and Related Food Preparers; Bakers, Pastry-cooks and Confectionery Makers; Dairy Products Makers; Fruit, Nut and Related Preservers; Tobacco Preparers and Tobacco Products Makers; Food and Beverage Tasters; Brewers, Distillers and Related Workers; and Other Food Processing and Related Workers.

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



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

The identified COVID\_19 effects on labour force participation are likely to have negative effects on output thereby increasing yield gaps

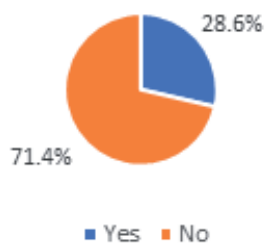
ii) **Market operations**

Successful transformation of smallholder agricultural production in Narok 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.

Among the marketing issues faced by the County is road access, a key indication of access to markets. Narok’s rural access index (RAI)- which measures “the number of rural people who live within two kilometers (typically equivalent to a walk of 20-25 minutes) of an all-season road as a proportion of the total rural population- fairs poorly at 36 per cent. This is low compared to the national average of 69.38 per cent.

As a result of COVID-19, there has been a further slow down on trade activities due to the restrictions on movements. From the KNBS conducted between 30th May and 6th June 2020, 28.6 per cent of the households in Narok 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

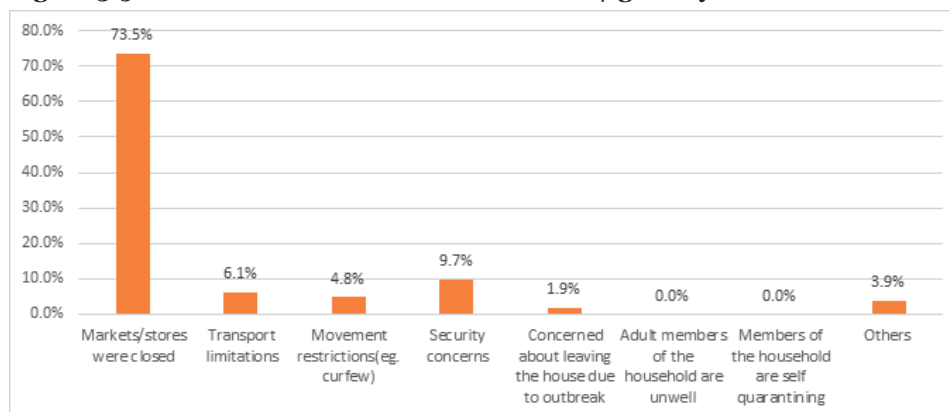
**Figure 3.4: Limited access to markets to purchase food items**



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 (73.5 per cent).

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



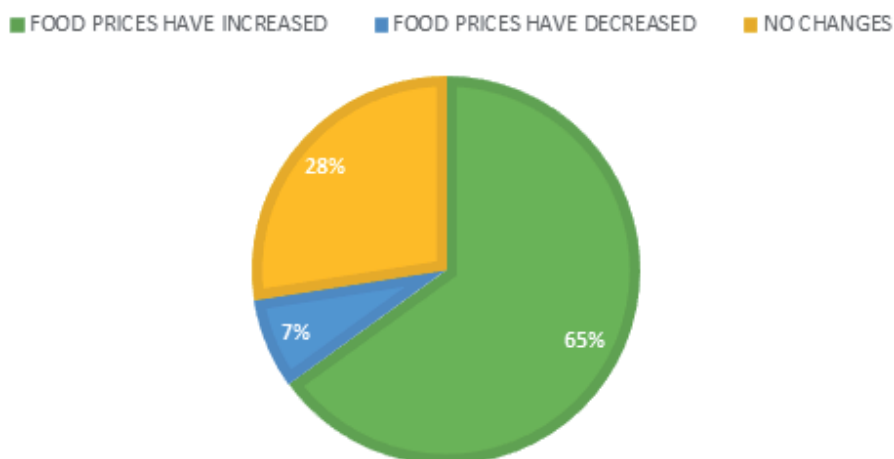
Source: KNBS Survey on Socio Economic Impact of COVID-19 on Households-Wave 2



Livestock trade was especially 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. 65 per cent of households in Narok County indicated that food prices had increased over the past 2 weeks from the reference period, while 28 per cent indicated that they had not experienced a change in the prices

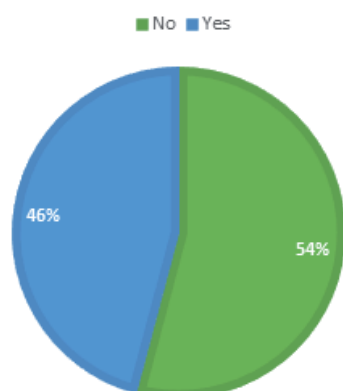
**Figure 3.6: Percentage of households experiencing change in food commodity prices**



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

On the magnitude of the price shocks, 46 per cent of the households indicated they faced a large rise in food prices in the past two weeks from the reference period.

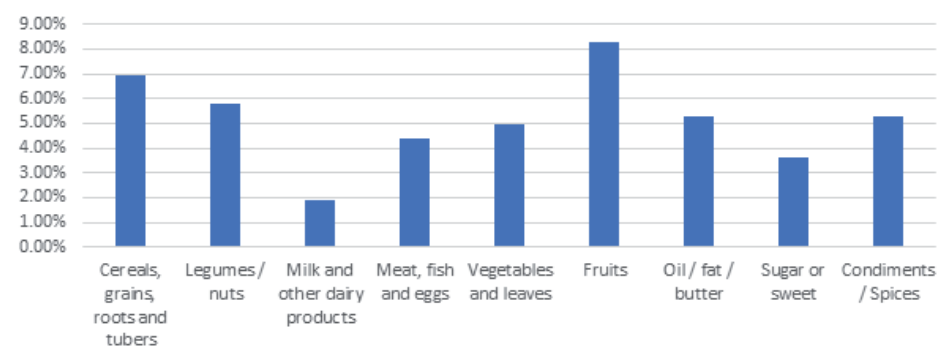
**Figure 3.7: Proportion of households facing large food price shocks**



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

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

**Figure 3.8: Per cent households reporting that the following food items were not readily available in their locality**

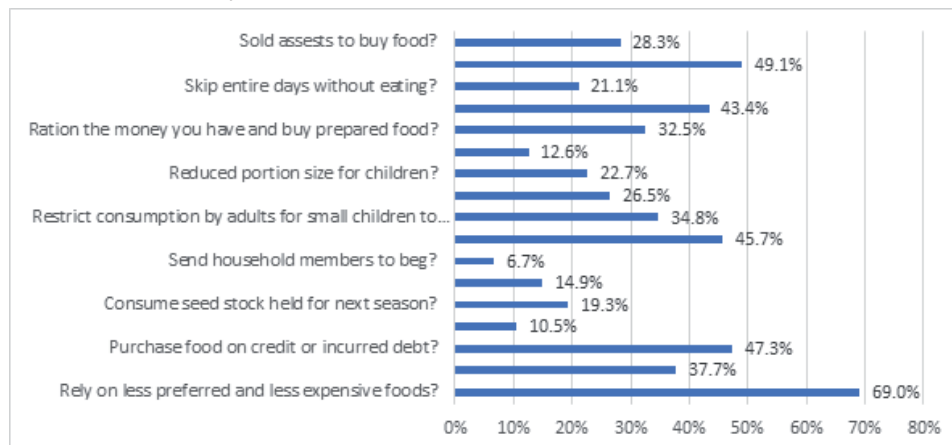


Source: KNBS Survey on Socio-Economic Impact of COVID-19 on Households-Wave 2

While access to all food groups were affected, a key concern is the effect on the nutritious food categories, in particular 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 (69 per cent), decreased buying some non-food products (49.1 per cent), purchase food on credit or incurred debt (47.3 per cent), and limit portion size at mealtimes (45.7 per cent).

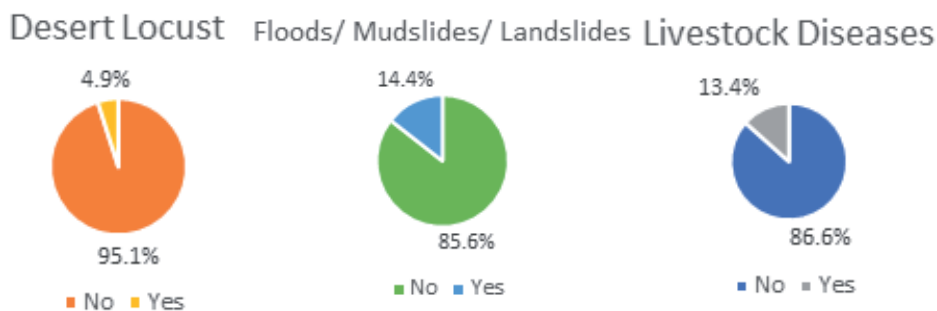
**Figure 3.9: Per cent of households where the following strategies were adopted for at least one day**



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

Additional challenges faced by the County during the COVID-19 pandemic period included: Desert locusts (4.9%); Floods/ Mudslides/ Landslides (14.4%); and Livestock Diseases (13.4%).

**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:

- a) Dependence of rain fed agriculture despite frequency in extreme climate conditions, such as drought episodes and delayed and erratic rains
- b) Variable and extreme weather events, including flash floods, which have increased in frequency and intensity over the years adversely affecting livestock and crop production
- c) Poor and inadequate infrastructure affecting marketing activities. For instance, the County had comparatively low road networks in comparison to other counties, critical for access to input and output markets
- d) Land use/land cover changes resulting from competing land uses resulting to insecurity and unsustainable land uses of the ecologically fragile resources
- e) Invasive species on crop and pasturelands
- f) Unreliable marketing channels characterized by high presence of middlemen in produce marketing with very limited farmer-marketing links.
- g) Limited access to agricultural and livestock inputs, credit and insurance services, climate and market information services
- h) Inadequate extension and veterinary services
- i) Slow uptake of digital platforms to market agricultural produce.
- j) Lack of storage and agro-processing capacities leading to farm losses and post-harvest waste.
- k) Farmers low access and capacity to act on early warning bulletins among other climate and weather advisories, as well as limited capacities in pastures rehabilitation and investment in sustainable land management practices.

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 episodes.

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

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

- i. Businesses/ MSMEs: Businesses and MSMEs are crucial in providing inputs and requirements to the agricultural sector. The sector would facilitate the efficient access to
- 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. Adoption of drought resistant livestock pastures/fodder and fodder and feed conservation
- ii. Rearing livestock breeds adapted to drought
- iii. Promotion of drought resistant and early maturing crops
- iv. Livestock Production for Niche Markets
- v. Strengthening water harvesting, sustainable and efficient irrigation.
- vi. Increased livestock production through: - routine vaccination, deworming and vector control to maintain animal health; decentralized veterinary services; disease surveillance; storing and conserving pastures and fodder; capacity building on animal management and training on preservation and value addition techniques.
- vii. Adoption of natural resource management to include soil and water conservation, tree planting, and changing of crop type.
- viii. Enhance supportive services to include early-warning systems, insurance and credit, extension advisory and information services through extension and training.
- ix. Enhancing farmers technical and resource capacities to act on advisory information received.
- x. Improved crop and livestock emergencies surveillance systems in the County.
- xi. Strengthening farmers access to input supply such as certified seeds and fertilizer, vaccination, pesticides, and herbicides, and animal feeds
- xii. Investment in cooling and storage facilities to reduce post-harvest losses
- xiii. Developing County-private partnership in enhancing agroprocessing and value addition and Linking farmers to product markets
- xiv. Strengthening farmers' associations and cooperatives as an additional solution to marketing challenges

### **3.3 Emerging Issues**

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

### **3.4 Recommendations**

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

- i) Build intensive agro processing and value addition capacities of the County particularly in horticulture (e.g. in tree tomatoes, banana, watermelons, tomato, potato, cabbages, kales, spinach, garden peas), bee keeping (apiculture), milk, meat and leather processing in partnership with the National Government, NGOs, Development Partners, Research Institutions and the Private sector. Currently the County is promoting the production and packaging of milk and is targeting on processing of hides and skin.
- ii) Invest in access roads to enhance linkage between farms and markets. Extensive rural road infrastructure plays a central role in provision of affordable access to both markets for agricultural outputs and modern inputs. Narok's rural access index (RAI) fairs poorly at 36 per cent compared to the national average of 69.4 per cent. There is thus need for the County to invest in access roads to enhance linkage between farms and markets. Other crucial market infrastructure includes lighting and water services to facilitate trade activities.
- iii) 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.
- iv) Invest in storage and cooling facilities particularly at collection points to minimize farm losses and post-harvest losses. Among the key cause of crops losses/ wastages in Narok County as identified by households are storage related. In addition, households experience substantial losses in livestock products especially in eggs and broilers production.
- v) Need for programmes for surveillance of disasters, such as extreme weather conditions and livestock disease, at the County level equipped with relevant technical specialists and finances to effectively prepare, respond and prevent risks. There is also need for the County to mitigate disasters, such as those related to floods, through institutional capacity development, vulnerability analyses and updates, monitoring and early warning systems, and public education.
- vi) Enhance uptake of agricultural insurance: - From the KNBS 2015/16 household survey,

there is no reported uptake of crop and livestock insurance among households in Narok County. With recurrent natural disasters like droughts, floods, land/mudslides, pest and disease outbreaks in ASALs, it is crucial that the County seeks affordable index-based insurance from development finance institutions (DFIs) to safeguard livelihoods. In addition, crop insurance is essential in safeguarding farmers' incomes and subsequently their livelihoods with increased frequency and intensity of extreme weather conditions such as floods and droughts and pest's invasion.

- vii) Enhance access to modern agricultural inputs: - The main crop and livestock inputs that households mostly spend on in the County include Livestock Manufactured Feeds, Mineral Salts, labor costs, inorganic fertilizers and mechanical equipment (tractor/oxen plough). There is further need for the County to enhance households access to quality and affordable inputs including certified seeds, water, improved animal breeds, AI services, livestock vaccination and ploughing services by County tractor hire services.
- viii) Establish multisectoral committees to deal with cross-cutting issues such as marketing of agricultural produce that cuts across the trade, ICT and infrastructure sectors that provide crucial market infrastructure such as road infrastructure, lighting and water services.
- ix) Promote irrigation farming by developing irrigation infrastructure. The County will support irrigation farming by increasing access to water for irrigation. This can be achieved by exploring the potential of irrigation farming in the County by collaboration with the national government as well as other stakeholders in agriculture.
- x) Enhance the capacity of farmers in adoption of modern farming technologies and practices (e.g. fodder establishments) and adopt sustainable land management practices to minimize environmental degradation. This can be done by establishing model farms & farmers training institutes.
- xi) Strengthen agricultural cooperatives through effective stakeholder engagement and implementation of interventions for more sustainable models of financing and customized training of cooperative members.

## **4. Water, Sanitation and Hygiene**

### **4.1 Characteristics of the Sector**

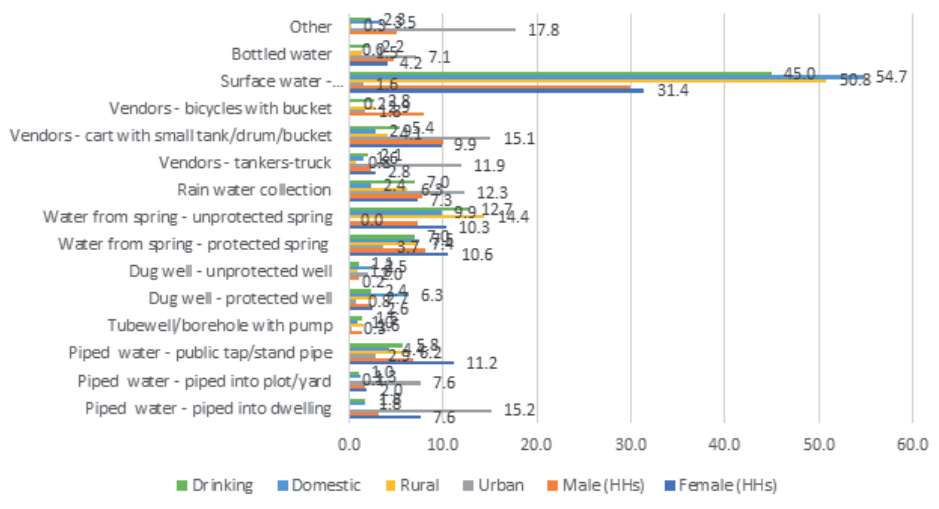
The major sources of water for households in the county are rivers, springs, ground water and surface runoff are the major sources of water in the county. Major rivers are Mara, Narok and Ewaso Nyiro. Ewaso Nyiro and Narok drain into Lake Natron while water from dams and water pans are used for livestock drinking. In the lowlands, such as Suswa and Mosiro, which are semi-arid, there is scarcity of water. Suswa area specifically has challenges as it has poor ground water potential. The soils are also poor for water pans construction. Major water supply schemes include Narok water supply, Ololunga water supply, Kilgoris water supply, Mulot water supply, Enaibelbel water supply, Ilmashariani water supply, Iolgorian water supply, Mosiro water supply, Lemek water supply, Oletukat water supply and Rotian water supply.

Most of the households in the county used latrines (covered and uncovered) for waste disposal with only a small proportion household relieved themselves in the bush, resulting to outbreaks of water borne diseases such as cholera and diarrhea especially during the rainy seasons. Households in urban areas use pit latrines and septic tanks, which are emptied by Narok Water and Sewerage Company exhauster and private owned exhausters. This has been necessitated by lack of a sewer system, which is a major sanitation problem.

### **Access to water by households**

The major source of water for drinking utilized by households in the county is surface water (45%), surface water is also common among rural (50.8%) while most of the urban households (15.2%) rely on piped water into dwellings at 15.2 per cent. There are also proportions of households utilizing piped water (public tap/standpipe) at 5.8 per cent.

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

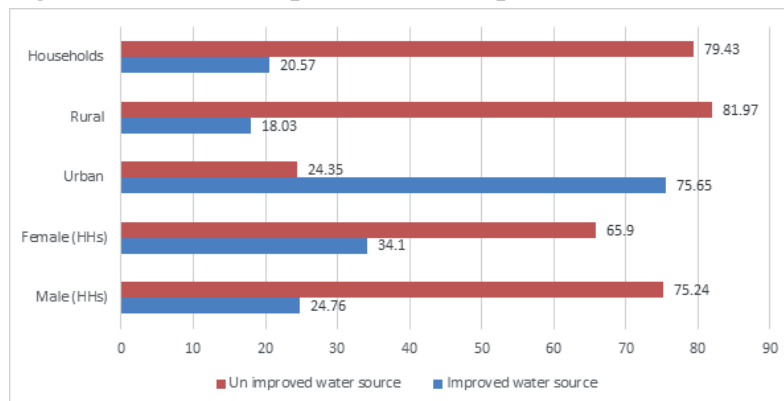


Source: KNBS 2015/2016

**Access to sources of water (improved and unimproved)**

Access to improved drinking water<sup>2</sup>, remains poor among households (20.6%), this is also common in rural (18%) in comparison to urban households (75.7%). Similarly, both male (24.8%) and female (34.1%) headed households have low access to improved sources of water.

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



Source: KNBS 2015/2016

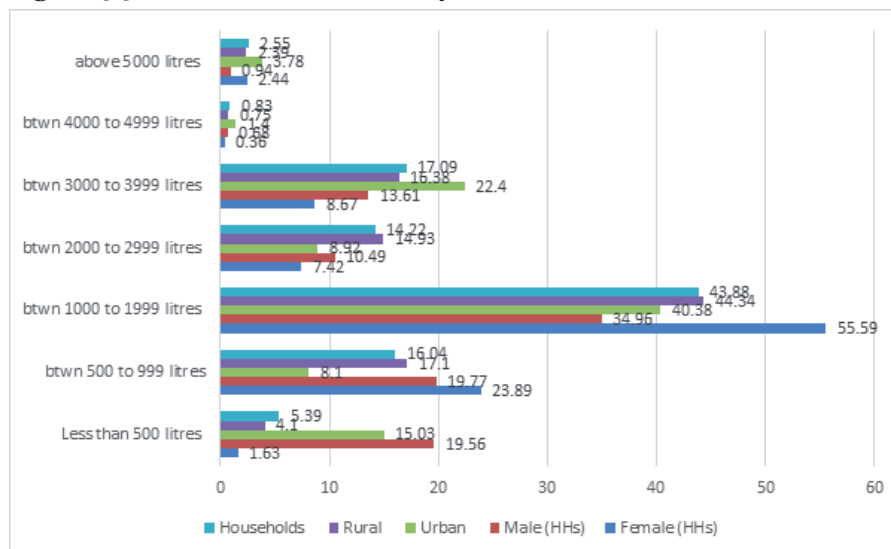
<sup>2</sup> Improved sources of water include; water from the following sources Piped water - piped into dwelling, Piped water - piped into plot/yard, Piped water - public tap/stand pipe, Tubewell/borehole with pump, Dug well - protected well, Dug well - unprotected well, Water from spring - protected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



### Volumes for water used by households in a month

Most households (43.9%) as well as rural (44.3%) and urban (40.4%) households use between 1000 to 1999 litres of water in the past one month. Similarly, most male (35%) and female (55.6%) headed households use between 1000 to 1999 litres of water in a month.

**Figure 4.3: Volume of water used by households in a month**

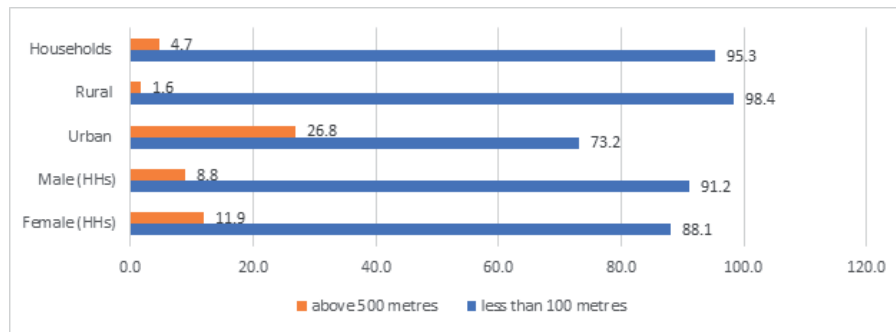


Source: KNBS 2015/2016

### Distance covered by households to and from source of water

Majority of the households (95.3%) both rural (98.4%) and urban (73.2%) covers less than 100 metres to water sources. This therefore means that households have water within their premises or close to their compounds. Only a small portion of households (4.7%) covers more than 500 metres to water sources.

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



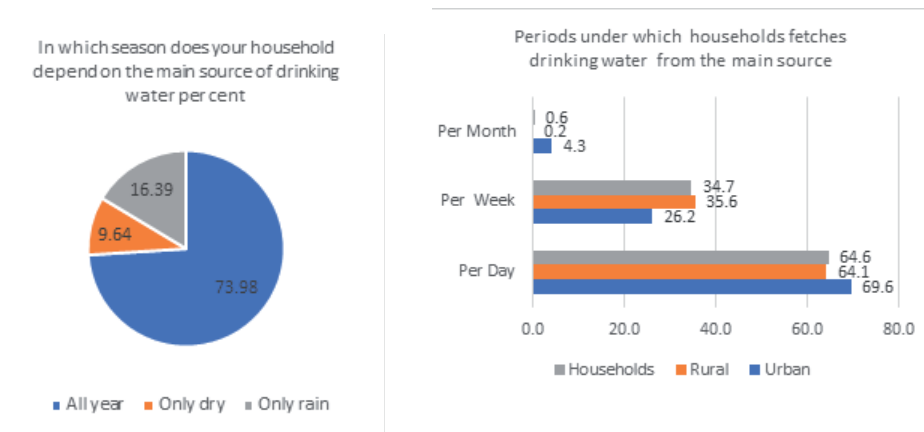
Source: KNBS 2015/2016

**Access and reliability of water sources**

Majority of households (74%) in the county rely on rivers as the main source water. This therefore means in case of the source drying up, households will lack water resulting into non observance of COVID-19 measures of hand washing. On the other hand, most households (64.6%), rural (69.6%) and urban (64%) must go to fetch drinking water from the sources per day.

This implies that households may not be having water storage facilities that can minimize number of trips to water points in a day, therefore they may be at risk of water shortages during dry months.

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



Source: KNBS 2015/2016

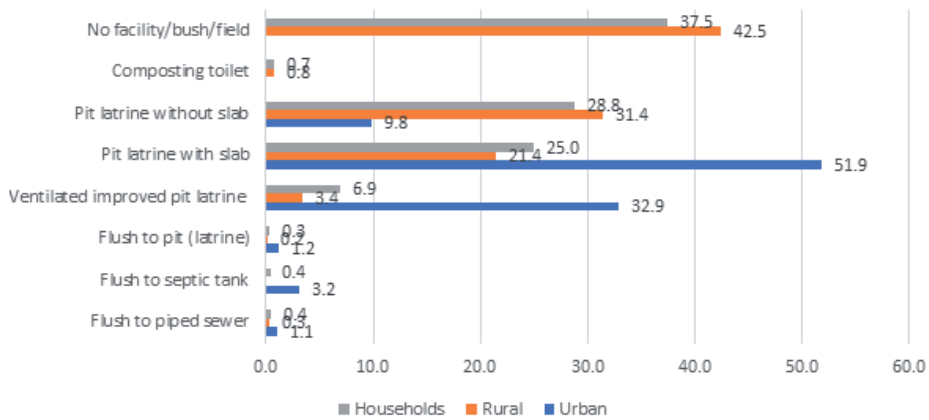
Source: KNBS 2015/2016

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

### Access to Sanitation

Majority of the households (37.5%) have no access to toilet facility; this is also common among rural households (42.5%). On the other hand, most of the urban households use pit latrine with slab (51.9%) and ventilated improved pit latrine at 32.9 per cent. Other utilized sanitation methods for households include pit latrine without slab (28.8%), (rural households 31.4%).

**Figure 4.6: Access to sanitation by households**



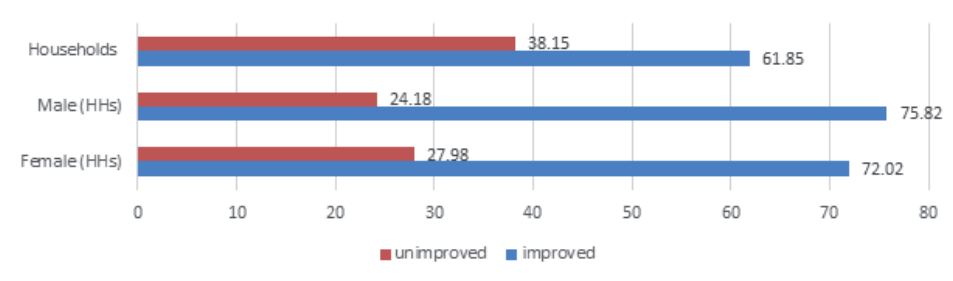
Source: KNBS 2015/2016

Access to sanitation is very important since it can help to detect the genetic residues of diseases in wastewater as those who are infected are thought to shed traces of the virus in faeces thus prompting for immediate action from the health officials. There is no sewerage plant in all the major towns and trading centres in the county.

### Access to improved and unimproved sanitation by households

Majority of the households (61.9 per cent) both male (75.8%) and female (72%) headed households have access to improved sanitation facilities<sup>3</sup>

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



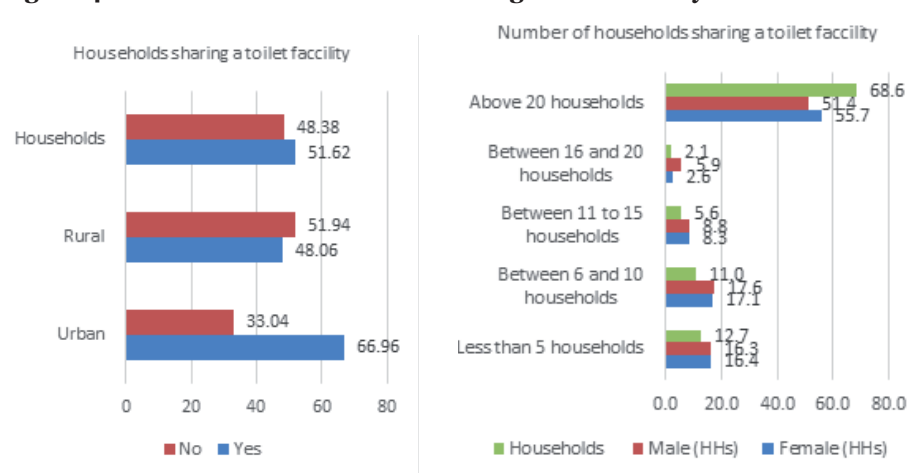
Source: KNBS 2015/2016

<sup>3</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, others

### Households sharing a toilet facility

Additionally, most of the households (51.6%) do share a toilet facility with other households, this is more in urban (67%) than in rural (48.1 per cent). On the other hand, large proportions of households (68.6%) who share a toilet facility with 20 other households this is more in female (55.6%) compared to male (51.4%) headed households. Only a small proportion of households (12.7%) do share a toilet facility with less than 5 other households.

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



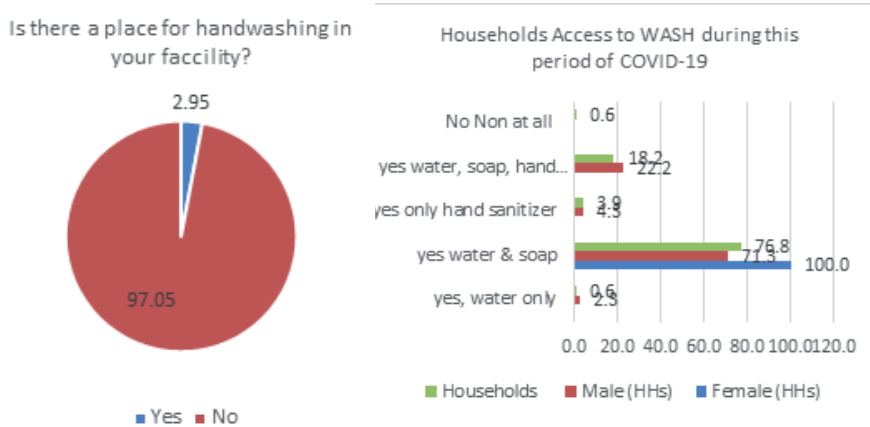
Source: KNBS 2015/2016

Source: KNBS 2015/2016

### Access to WASH

WASH has been identified very important in helping to curb transmission of infectious diseases, most of the households (97.1%) in the county do not have a handwashing facility in their households. On the other hand, most of the households (76.8%), male (71.3%) and female (100%) headed households have access to WASH (Water and soap) during this period of COVID-19. Additionally, 18.2 per cent of the households have access to both water, soap, and hand sanitizer.

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



Source: KNBS 2015/2016

Source: KNBS COVID-19 Wave 2 2020

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

#### 4.2 Opportunities with COVID-19 in various sectors

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

#### 4.3 Emerging Issues

Among measures put in place to mitigate the effect of COVID-19 under water and sanitation include a budget of Ksh 200 million has been set aside by the Baringo County to fight the pandemic where Ksh 70 million is directed towards food items and water. Other planned measures include provision of water tanks and handwashing facilities to schools to ensure compliance with COVID-19 safety requirements. Infrastructure has been boosted to support water and sanitation efforts.

#### 4.4 Recommendations

The recovery strategy recommends the following strategies for implementation:

- i) Increase access to water to households, schools, health centre and other institutions by drilling boreholes, construction of dams and construction of a weir.
- ii) Integrate public private partnerships arrangements to enhance water provision in the county.
- iii) Fast-track the development of the county’s water master plan to improve water resource management and sustainability

- iv) Support capacity building of rural water management committees through trainings to help improve efficiency of water services
- v) Support protection of water springs, wetlands and water catchment areas in the county
- vi) Expand and rehabilitate the existing piped water connection infrastructure to help increase access to water.
- vii) Support rural households with water treatment facilities to help access to clean safe water.
- viii) Complete, operationalize and expand sewer infrastructure to accommodate more households. Currently there is low access to sewer coverage in the county.
- ix) Build toilets in communities, households, schools, health care facilities, marketplaces and public places to help increase access to improved sanitation<sup>4</sup>. Toilet sharing puts households at risk of contracting COVID-19, and other infectious diseases in cases where proper toilet hygiene is not maintained.
- x) Provide personal protective equipment to staff working in water and sanitation sector for maximum safety and uninterrupted service delivery during this period of COVID-19.
- xi) Promote the importance of handwashing and construct WASH facilities to increase access at the household level. This may compromise hand washing hygiene of households thus making households vulnerable to contracting COVID-19.
- xii) Enforce the WASH regulation of having toilets in all public facilities such as supermarkets, hotels and banks.
- xiii) Organize sensitization forums on the importance of handwashing through the media and in community forums.
- xiv) Collaboration between county government, national government, donor agencies, private sector and local community is encouraged to help implement WASH programs.

---

<sup>4</sup> Improved sanitation include; 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, while unimproved sanitation include; composting toilet, bucket toilet, hanging toilet/hanging, no facility/bush/field. WHO and UN classification of types of sanitation facilities.

## 5. Manufacturing, Trade and MSMEs

### 5.1 Characteristics of the Sectors

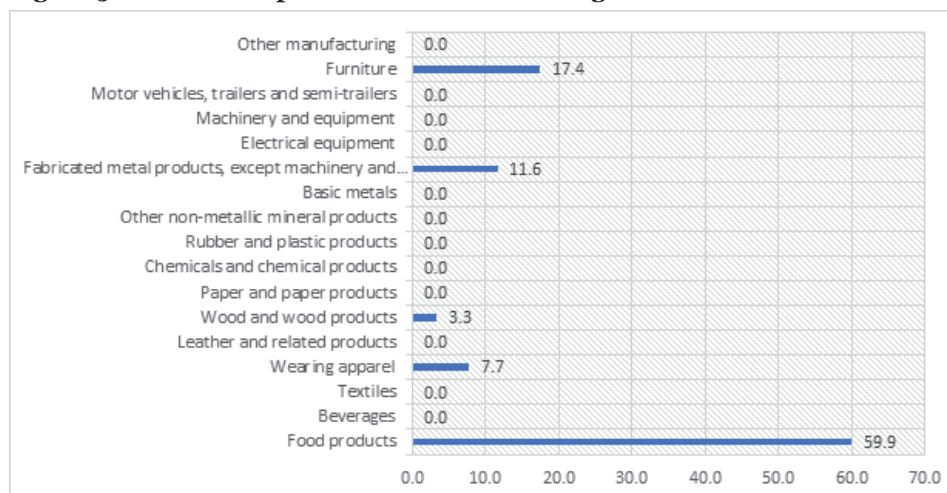
#### a) Manufacturing sector

Narok County has 1,206 establishments involved in manufacturing activities which comprise of 5.2 per cent of a total of 23,196 firms (KNBS, 2016) and all are micro in size.

#### Sector of operation

The KNBS, 2016 survey establishes the key sub-sectors that drive manufacturing in the County as: food products (59.9%), furniture (17.4%), fabricated metal products, except machinery and equipment (11.6 per cent) and wearing apparel (7.7%) (Figure 5.1). These are sub-sectors that are considered essential in dealing with COVID-19 are likely to experience increased activity with focus on food production, production of Personal Protective Equipment (PPEs) and hospital beds. The key products useful in value addition and driving manufacturing include millet, sorghum, maize, livestock and skins and hides processing. Further, industries driving manufacturing sector in the county are involved in hide and skin processing, packaging branded meat, wheat production and grain milling.

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



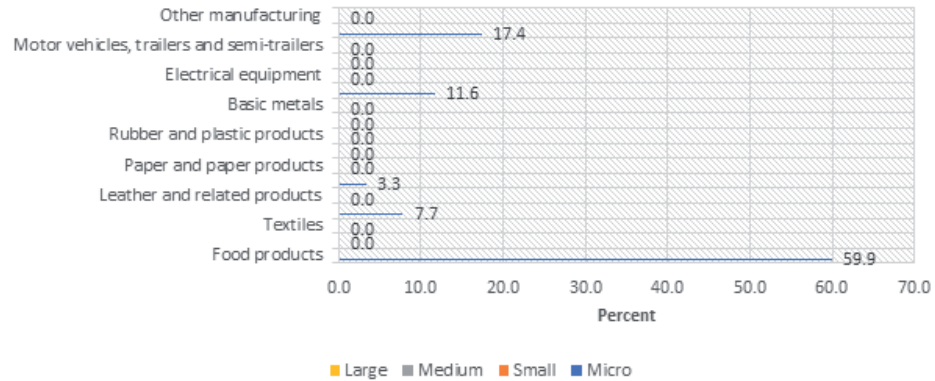
Source: KNBS (2016)



### Sector of operation by size

Nearly all the establishments in Narok County are micro in nature and operate in food products (59.9%), furniture (17.4%), fabricated metal products, except machinery and equipment (11.6%), and wearing apparel (7.7%) (Figure 5.2).

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

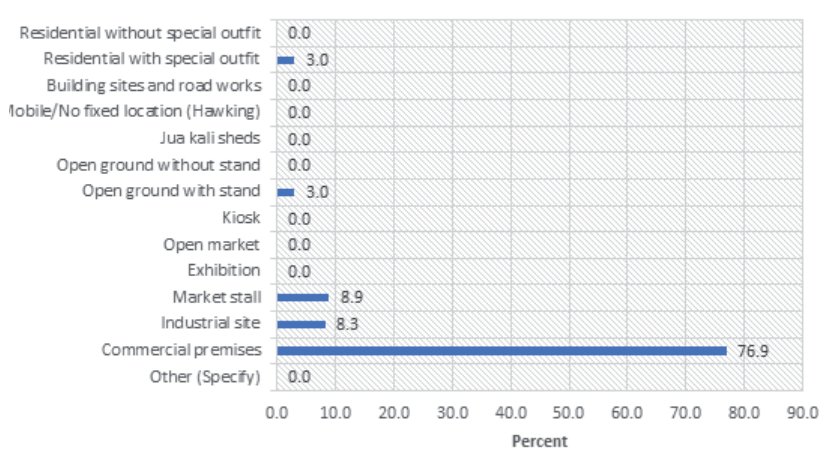


Source: KNBS (2016)

### Location of manufacturing firms by type of premises

The common premises used by manufacturing enterprises in Narok County include commercial enterprises (76.9%), market stall (8.9%), industrial site (8.3%), open ground with stand (3%), and residential with special outfit (3%) (Figure 5.3).

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



Source: KNBS (2016)

### Distribution of Manufacturing firms by gender and size

Manufacturing enterprises in Narok County are mainly owned by male (88.2 per cent), with females comprising 5.9 per cent while 5.9 per cent are jointly owned with all the firms are micro-sized (table 5.1).

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

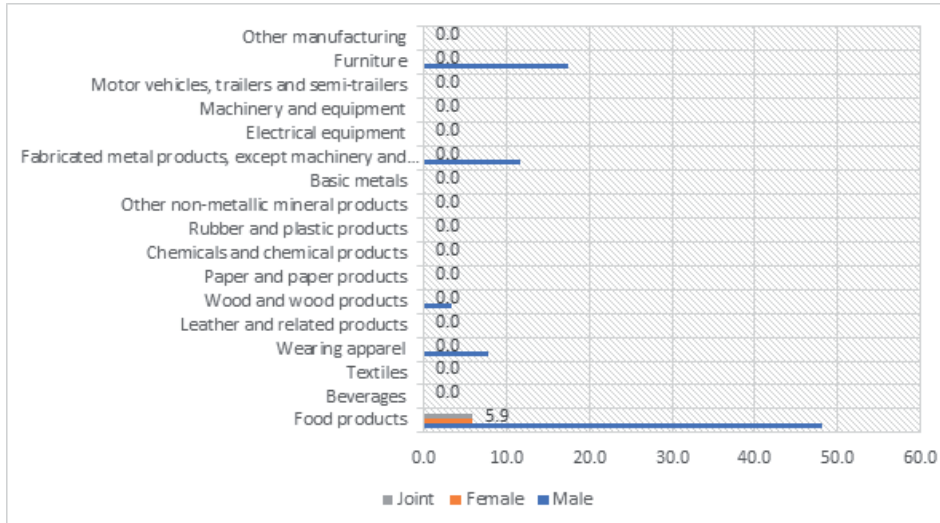
Gender	A11	Micro
Male	1,063 (88.2)	1,063 (88.2)
Female	71 (5.9)	71 (5.9)
Joint	71 (5.9)	71 (5.9)
Total	1,206 (100)	1,206 (100)

Source: KNBS (2016)

### Distribution of Manufacturing firms by gender and sector

Majority of the sub-sectors in manufacturing are male dominated including food products (48.1 per cent), furniture (17.4 per cent), fabricated metal products except machinery and equipment (11.6 per cent) and wearing apparel (7.7 per cent) (figure 5.4). Females are mostly found in the food products (5.9 per cent).

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



Source: KNBS (2016)

In terms of employment, the manufacturing sector employs more men (92.3%) than women (7.7%) and are largely found in the micro-sized enterprises in the same proportion (Table 5.2).

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

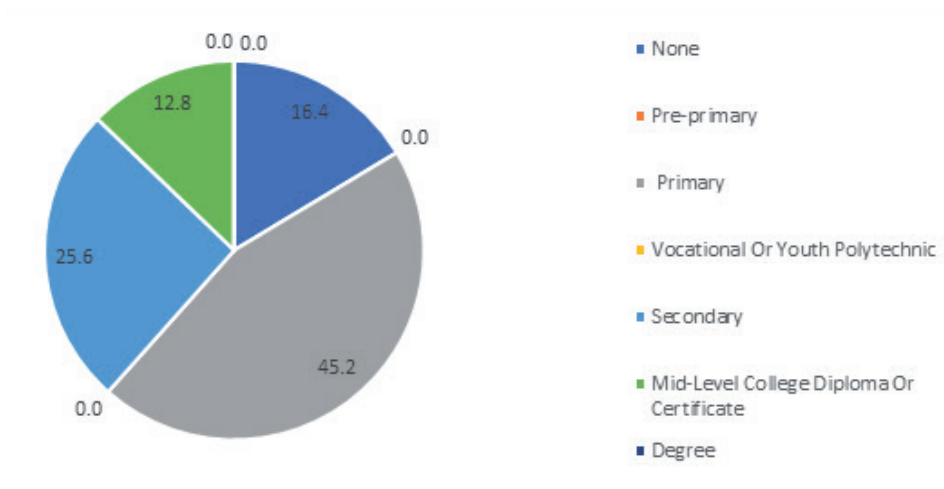
Number of employees	Micro	Total
Male	2,559 (92.3)	2,559 (92.3)
Female	214 (7.7)	214 (7.7)
Total	2,773 (100)	2,773 (100)

Source: KNBS (2016)

### Education levels of Manufacturing firm owners

Education levels of manufacturing firm owners in Narok County is depicted in figure 5.5: primary (45.2%), secondary (25.6%), degree (16.4%), and mid-level college diploma or certificate (12.8%).

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

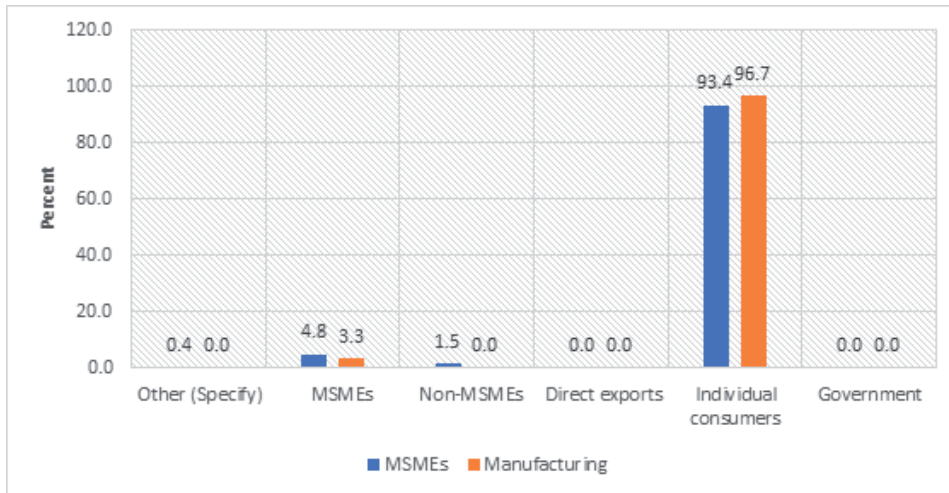


Source: KNBS (2016)

### Source of markets

Majority of manufacturing firms and MSMEs in general rely on individual consumers for markets at 96.7 per cent and 93.4 per cent respectively (figure 5.6). MSMEs are also important sources of markets for both manufacturing firms and MSMEs.

**Figure 5.6: Source of markets**

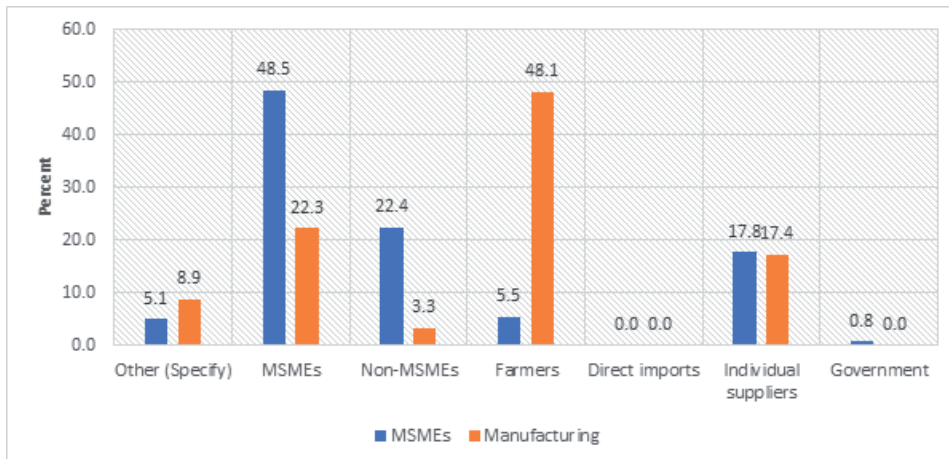


Source: KNBS (2016)

### Source of material inputs

Generally, manufacturing establishments and MSMEs source for material inputs from amongst MSMEs (22.3% and 48.5%); and farmers (48.1% and 5.5%), respectively (Figure 5.7). Individual suppliers and non-MSMEs are also important to the supply of inputs for both manufacturing firms and MSMEs in Narok County, respectively.

**Figure 5.7: Source of material inputs**



Source: KNBS (2016)

### Level of innovation by firms in Manufacturing

Manufacturing establishments in Narok County were involved in product and process innovations at (6.7%) and (3.3%), respectively (Table 5.3).

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

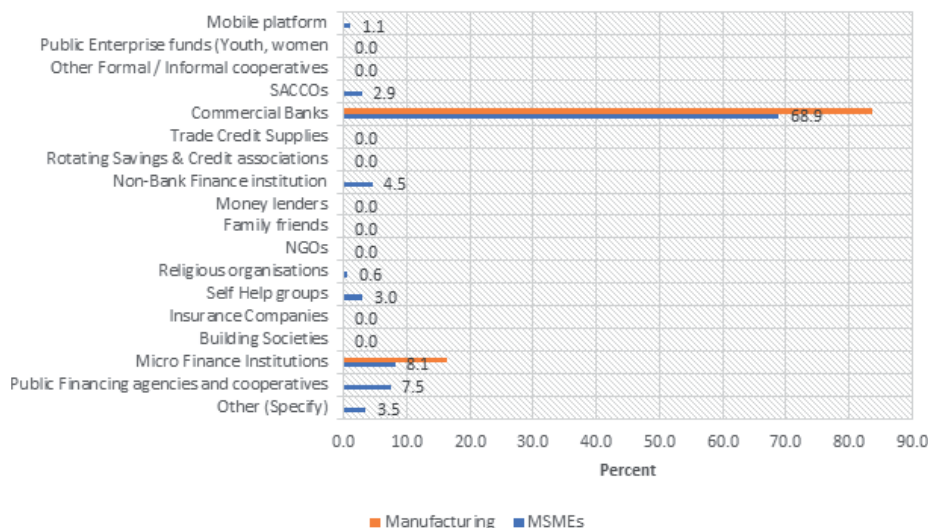
Type of innovation	Micro			Total
	Don't know	No	Yes	
Product	0 (0)	1,126 (93.3)	80 (6.7)	1,206 (100)
Process	0 (0)	1,166 (96.7)	40 (3.3)	1,206 (100)
Market	0 (0)	1,206 (100)	0 (0)	1,206 (100)

Source: KNBS (2016)

### Access to credit for Manufacturing and MSMEs firms

According to the MSME 2016 survey, 68 per cent of MSMEs and 67.4 per cent of those in manufacturing applied for credit. Manufacturing source their credit from commercial banks (83.6%), and MFIs (16.4%). MSMEs get their financing from commercial banks (68.9%), MFIs (8.1%), public financing agencies and cooperatives (7.5%), and non-bank finance institutions (4.5%) (Figure 5.8).

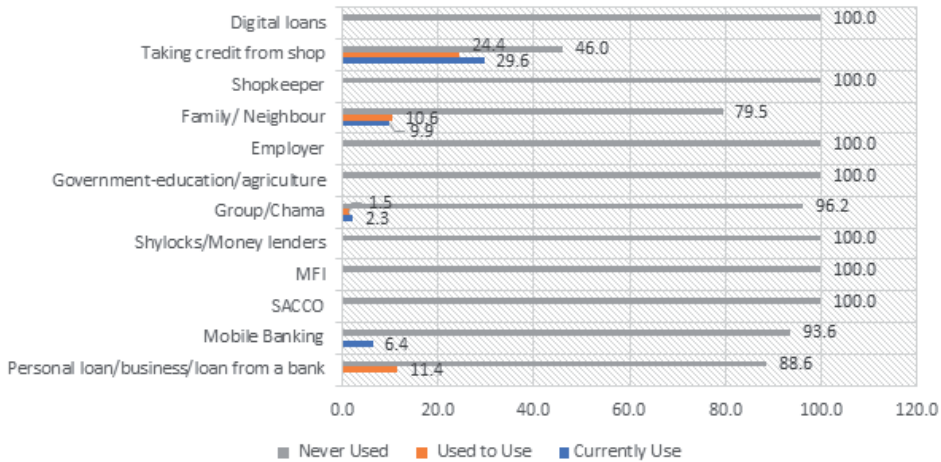
**Figure 5.8: Sources of finance**



Source: KNBS (2016)

Recent evidence from FinAccess 2019 provides further insights on sources of credit for businesses in Narok County. Businesses commonly obtain credit from the conventional sources such as shops (29.6 per cent), family/neighbour (10.6%), and group/chama (2.3%). Emerging sources of credit for businesses in Narok county include mobile money (6.4%) (Figure 5.9).

**Figure 5.9: Recent sources of credit**

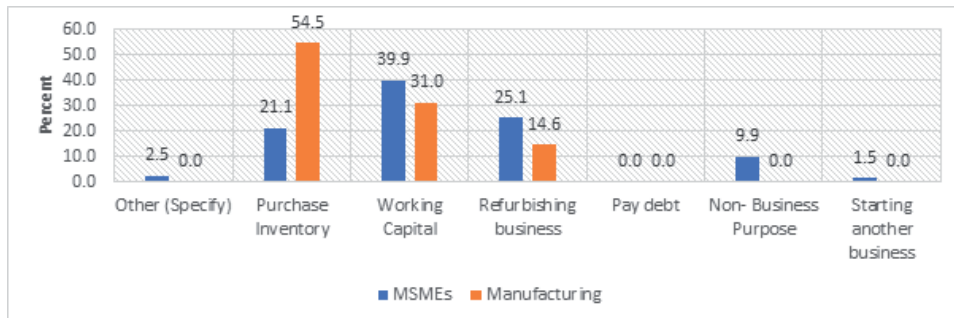


Source: FinAccess (2019)

### Purpose of credit

The main purpose for credit for both firms in manufacturing and MSMEs is depicted in figure 5.10. Manufacturing enterprises require credit for purchasing inventory (54.5%), working capital (31.0%), and refurbishing business (14.6%). MSMEs require credit for working capital (39.9 per cent), refurbishing business (25.1%), purchasing inventory (21.1%), and non-business purposes (9.9%).

**Figure 5.10: Main purpose of credit**

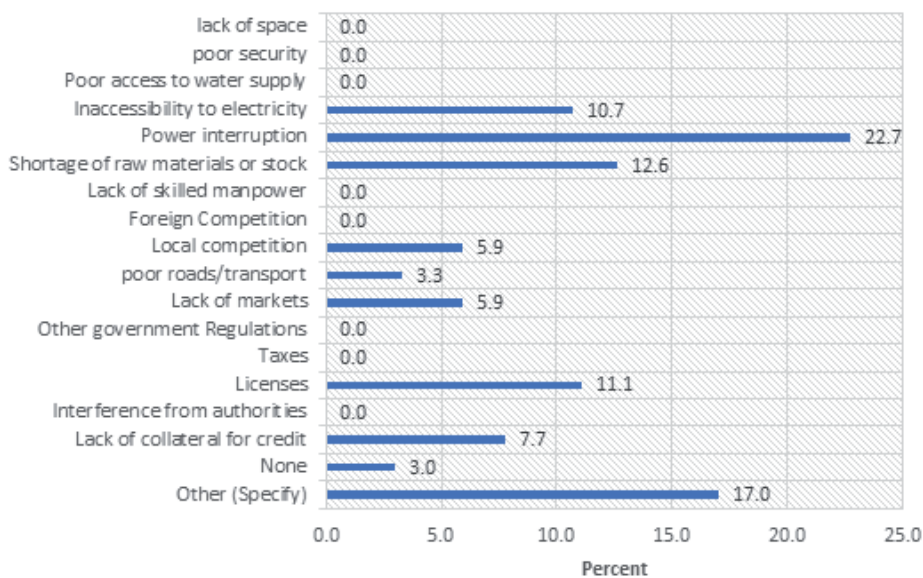


Source: KNBS (2016)

### Constraints faced by manufacturing firms

The key constraints faced by manufacturing firms in the County include power interruption (22.7%), shortage of raw materials or stock (12.6%), licenses (11.1%), inaccessibility to electricity (10.7%), lack of collateral for credit (7.7%), lack of markets (5.9%), and local competition (5.9%) (Figure 5.11).

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



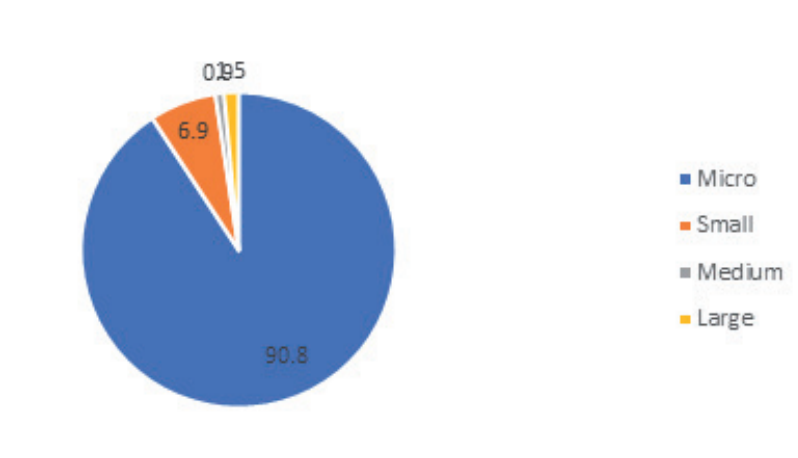
Source: KNBS (2016)

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

Narok County has 23,196 establishments<sup>5</sup> with 21,055 (90.8%) being micro, 1,593 (6.9%) are small, 203 (0.9%) are medium and 346 (1.5%) are large enterprises (KNBS, 2016) (Figure 5.12).

<sup>5</sup> After applying weights

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

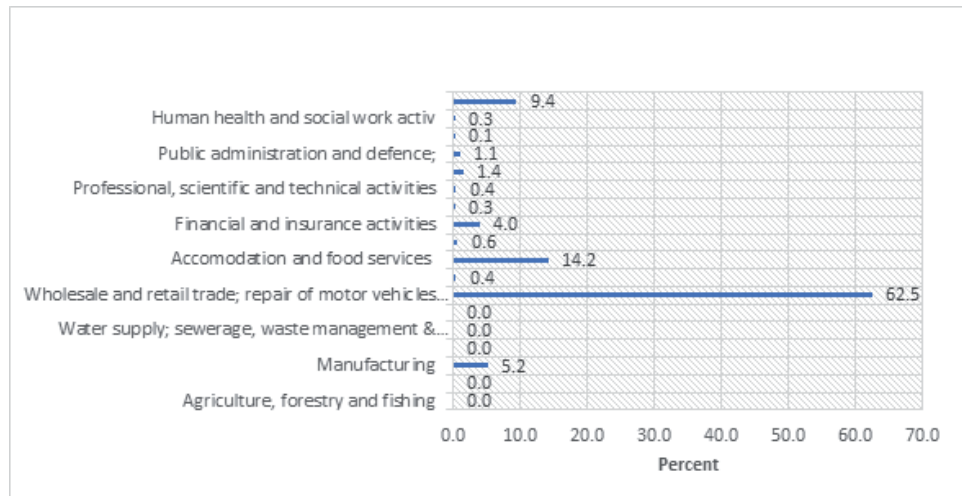


Source: KNBS (2016)

**Sector of operation by MSMEs**

Majority of MSMEs in Narok County operate in the wholesale and retail trade, repair of motor vehicles and motorcycles (62.5%; accommodation and food services (14.2%); arts, entertainment, and recreation (9.4%), manufacturing (5.2%), and financial and insurance activities (4.0%) (Figure 5.13). Ideally, these are the sectors that have been worst hit by the pandemic and need focus in achieving re-engineering and recovery.

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



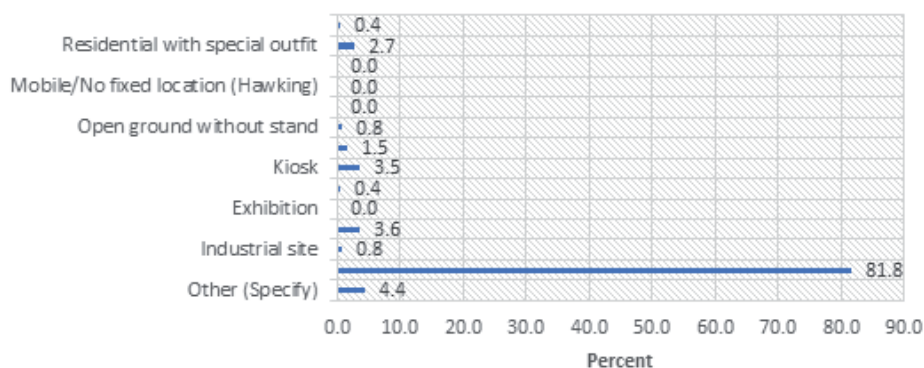
Source: KNBS (2016)



### Location of the businesses by type of premises

MSMEs in Narok County are mainly located in commercial premises (81.8%), market stall (3.6%), kiosks (3.5%), and residential with special outfit (2.7%) (Figure 5.14). According to the May 2020 KNBS COVID-19 survey 75 per cent of the non-farm businesses attributed non-payment of household rental obligations to reduced incomes/earnings while 25 per cent attributed the same to delayed incomes/earnings. For those involved in farm businesses, 90.3 per cent attributed the same to reduced incomes/earnings while 9.7 per cent were affected delayed incomes/earnings.

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



Source: KNBS (2016)

### Distribution of MSMEs by gender and size

Table 5.4 shows the distribution of MSMEs in Narok County by gender: 57 per cent are male owned, 21.9 per cent are female owned, while 21.1 per cent are jointly owned (male/female). For Micro establishments, 57.9 per cent are male owned, 23.3 per cent are female owned, while 18.8 per cent are jointly owned. Male owners also dominate ownership among small sized establishments at 56.7 per cent, females own 11.3 per cent, and 32 per cent are jointly owned. Considering medium sized establishments, ownership is by male (57.4%) and joint (42.6%) while large firms are fully controlled jointly (100%).

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

Gender	A11	Micro	Small	Medium	Large
Male	13,213 (57)	12,193 (57.9)	903 (56.7)	116 (57.4)	0 (0)
Female	5,084 (21.9)	4,904 (23.3)	180 (11.3)	0 (0)	0 (0)
Joint	4,899 (21.1)	3,957 (18.8)	510 (32)	86 (42.6)	136 (100)
Total	23,196 (100)	21,055 (100)	1,593 (100)	203 (100)	136 (100)

Source: KNBS (2016)

In terms of employment, the large sized establishments employ more people (47.9%) compared to micro (27.8%), small (15.0%), and medium (9.3%) (Table 5.5). Micro firms employ 17.9 per cent male and 9.9 per cent female and small sized employ 8 per cent male and 7 per cent female. Equally, more men are employed among medium establishments at 7.2 per cent and while females include 2.1 per cent. Large firms employ more men (36.1%) and female (11.8%). Overall, more men (69.2%) are employed by MSMEs in Narok County than women (30.8%).

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

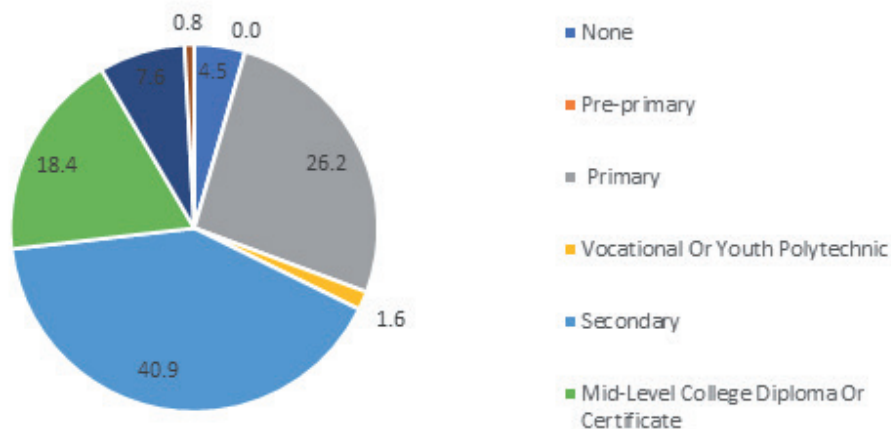
Gender	Micro	Small	Medium	Large	Total
Male	31,863 (17.9)	14,252 (8)	12,857 (7.2)	64,342 (36.1)	123,314 (69.2)
Female	17,687 (9.9)	12,432 (7)	3,694 (2.1)	21,015 (11.8)	54,828 (30.8)
Total	49,550 (27.8)	26,684 (15)	16,551 (9.3)	85,357 (47.9)	178,142 (100)

Source: KNBS (2016)

### Education levels of MSME owners

Figure 5.15 highlights the levels of MSME owners in the County as follows: secondary (40.9%), primary (26.2%), mid-level college diploma or certificate (18.4%), and degree (7.6%). About 4.5 per cent of MSME owners in the County do not have 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 Narok County by MSMEs according to size. Generally, there were low levels of innovation across MSMEs with 6 per cent involved in product, 2.4 per cent for process, and 2.1 per cent in market innovation for micro-sized enterprises. Regarding small-sized enterprises, 0.5 per cent engaged in product, 0.1 per cent process and 0.9 per cent market innovation. With regards to medium sized enterprises, 0.1 per cent were involved in product, process and market innovation each while for large firms 0.8 per cent were involved in product and 0.4 per cent market innovations.

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

Type of Innovation	Micro				Small				Medium		Large			Total
	Refused to answer	Don't know	No	Yes	Refused to answer	Don't know	No	Yes	No	Yes	Don't know	No	Yes	
Product	0 (0)	0 (0)	19,560 (86.1)	1,367 (6)	0 (0)	0 (0)	1,471 (6.5)	122 (0.5)	173 (0.8)	30 (0.1)		173 (0.8)	173 (0.8)	22,723 (100)
Process	0 (0)	0 (0)	20,390 (89.7)	538 (2.4)	0 (0)	0 (0)	1,563 (6.9)	30 (0.1)	173 (0.8)	30 (0.1)	86 (0.4)	259 (1.1)	0 (0)	22,723 (100)
Market	0 (0)	0 (0)	20,448 (90)	480 (2.1)	0 (0)	0 (0)	1,392 (6.1)	200 (0.9)	173 (0.8)	30 (0.1)		259 (1.1)	86 (0.4)	22,723 (100)

Source: KNBS (2016)

## E-commerce

Participation in e-commerce by households in Narok County is below the national average. About 1.5 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 (1.9 per cent) than women (1%). With introduction of stay-at-home protocols due to COVID-19 online trade has been expected to thrive, little may be impacted in Narok County since fewer households participate in the same.

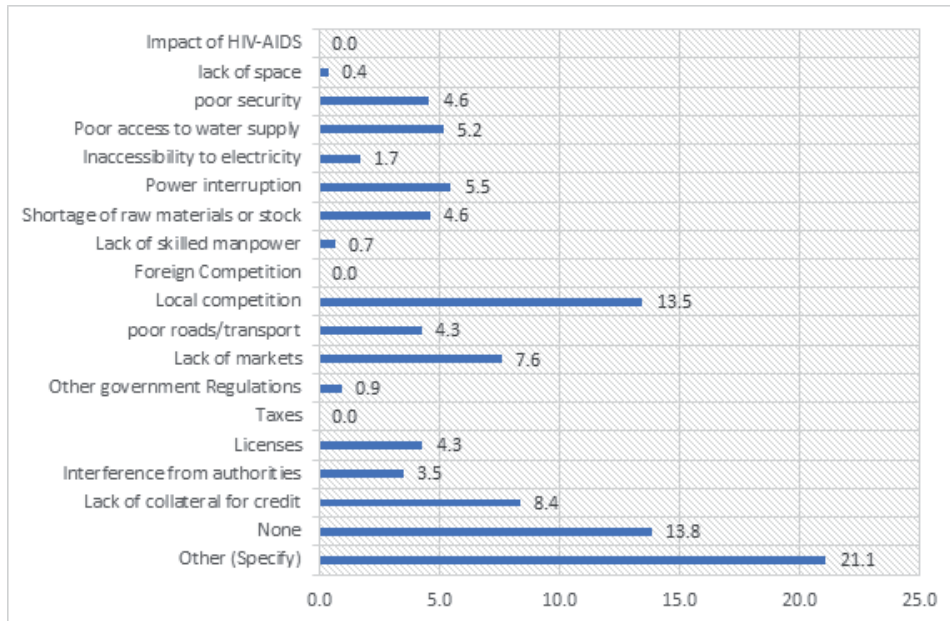
## Turnover tax

Only 9 per cent of MSMEs in Narok County (2,079) had a previous monthly turnover of above Ksh 83,333 which translates to Ksh 1 million a year. Ideally, this would be the establishments that are eligible for turnover tax with the new thresholds recently introduced vide the tax laws (Amendment) Act, 2020. The actual impact of this move may be difficult to estimate due to data challenges on actual revenue streams and the number of establishments that comply with the same.

## Constraints faced by MSMEs

The major constraints faced by MSMEs in Narok County include local competition (13.5%), lack of collateral for credit (8.4%), lack of markets (7.6%), power interruption (5.5%), poor access to water supply (5.2%), poor security (4.6%), and shortage of raw materials or stock (4.6%) (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 Narok County as: financial and technical capacity, market environment, and worksite and related infrastructure (KIPPRA, 2019). On worksites, MSEs face inadequate and unequipped worksites, lack of public toilet facilities, lack designated areas for waste disposal, poor road infrastructure, frequent power interruptions. On technical capacity MSEs are characterized by low levels of innovation, lack of training and apprenticeship programme for artisans, fragmentation due to multiplicity of players who offer training and capacity building, and lack of monitoring and evaluation of training programmes. With the market environment, MSEs face inadequate market for their local products; stiff competition among themselves; and unfair trade practises which manifest through; contract enforcement, counterfeiting, dumping (substandard goods) and misrepresentation (through weight, price, ingredient). MSEs also face bottlenecks related to; insecurity; multiple licences and permits; numerous procedures for obtaining licenses; and shortage of raw materials.

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

Figure 5.17 presents the effects of COVID-19 on household non-farm and farm businesses in Narok County. 100 per cent of the respondents report a decrease in their business activities due to the pandemic. Equally 100 per cent of the respondents have had a decrease in their income due to COVID-19. This is an indicator that COVID-19 is already having a negative toll on the non-farm and farm businesses even though the situation is still evolving.

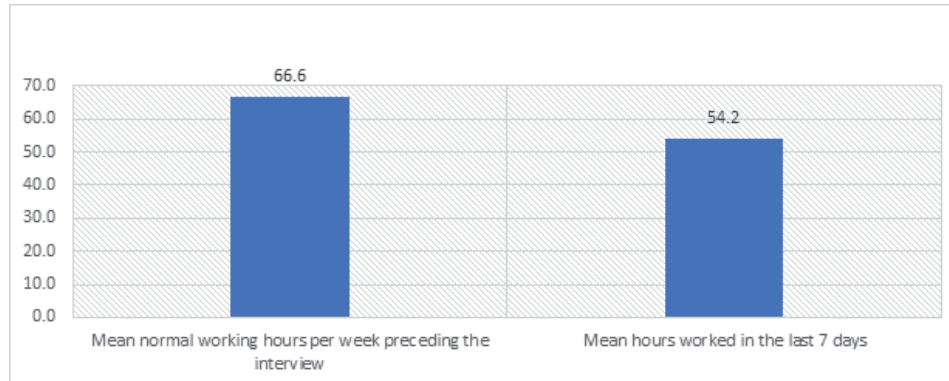
**Figure 5.17: Effects of COVID-19 on household non-farm and farm businesses**



Source: KNBS, COVID\_19 Survey 2020 Labour dynamics

During the period considered in KNBS, COVID-19 Survey 2020, respondents reported a decrease of 12.4 hours in the mean working hours for household non-farm and farm businesses Narok County which implies a deterioration in economic activities between the interview periods (Figure 5.18). This could be as a result of agricultural and service activities considering these considerably form the main stay of the County.

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



Source: KNBS, COVID-19 Survey 2020

Further, the wholesale and retail trade sector lost 15.1 hours in usual and actual hours worked while accommodation and food services lost 9 hours in a week. Equally, the manufacturing sector lost 13.5 hours.

## **Key Messages**

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

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

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

- (i) Agro - processing for value addition with important areas of focus include horticulture, millet, sorghum, maize, livestock and skins and hides processing.
- (ii) The textile and wearing apparel sectors can be enhanced to provide PPEs for use within the County and potentially for the export market.
- (iii) Exploration and processing of minerals such as gold, iron ore, quartz, and limestone.

### **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) Some of the shops in Narok County have been closed.
- (ii) Relaxation of the single business markets in the open market. This potentially leads to decrease in revenues for the County.
- (iii) Initially, the COVID-19 led to close of markets in order to comply with the given guidelines.
- (iv) There has been an increased wave of innovations during the pandemic.
- (v) have been faced with declining sales and revenues due to depressed demand and low circulation of money in the County, which is caused by loss of incomes by the residents.
- (vi) There is a decrease in trade activities in the County due to restrictions on movements due to fear of attending physical markets, where there is fear of contracting the disease.
- (vii) Businesses are faced with challenges of increased costs resulting from the need to comply with new protocols in form of; provision of handwashing and sanitization points, wearing of masks even for workers, rearrangement of floor plans for social distancing especially for manufacturers and awareness creation.

### **5.3 Emerging Issues**

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

### **5.4 Recommendations**

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

- i) Consider an emergency rescue package for businesses and traders hard-hit by the effects of COVID-19 in the short run. The emergency Fund, supported by development partners and other stakeholders, will be used to identify and support the most vulnerable businesses and entrepreneurs affected by COVID-19. Related, the County will inject some stimulus to cushion the businesses and traders through affordable

credit; waiver of some County taxes, cess, and other charges.

- ii) COVID-19 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. However as the pandemic subsides, the transition need to be managed smoothly.
- iii) Establishments in the county will adopt to the new pandemic guidelines including rearranging floor plans to allow for social distancing.
- iv) Establish timber processing industries in the county
- v) Introduce the production and planting of fruit and agroforestry trees under the Operation Make Narok Green Again (OMENGA).
- vi) Provide incentives to industries keen on investing in value addition - milk processing, potato plant, and maize milling.
- vii) Create linkages between industries and Vocational training colleges in the County.



## 6. Infrastructure

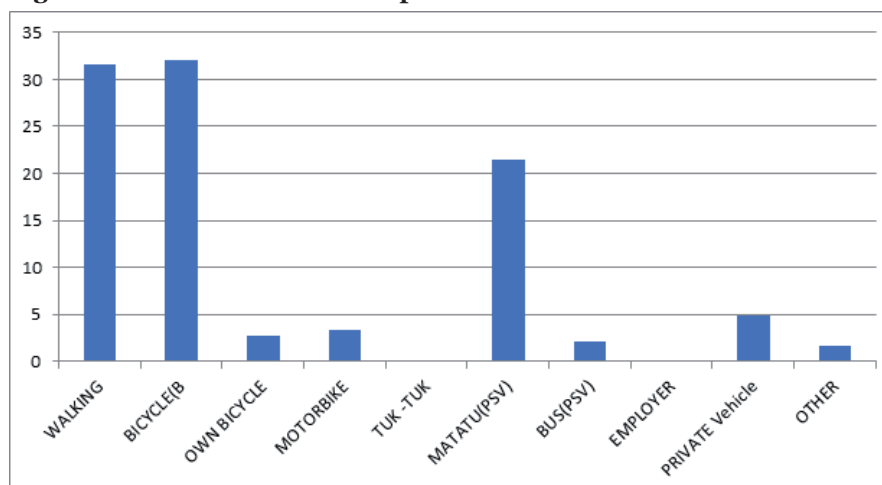
### 6.1 Transport and Roads

Cess has been forgone, Parking fees from the *matatus* (transport sector) has not being charged since April. The long rain has destroyed the road network in the county like the main Narok-Nairobi highways that led to cessation of transport and essentials services. There is need to expand budgetary allocation to improve road infrastructure.

#### 6.1.1 Characteristics of the sector

Majority of households own a motorcycle (10.7 per cent) and a bicycle (3.7 per cent). Car ownership is at 3.5 per cent (KNBS, 2019). The main means of transport used in the County is bicycle (*boda boda*) 32.1 per cent, PSV *matatus* at 21.4 per cent, private car at 4.87 per cent, and motorbike 3.3 per cent figure 6.1, while 87.7 per cent of the population had not changed the main means of transport (KNBS, 2020b). On average, residents travel 5.11 kilometers to their workplace at an average cost of Ksh 320.05. For the commute to school, residents spend on average Ksh 469.8 (KIHBS, 2015/16).

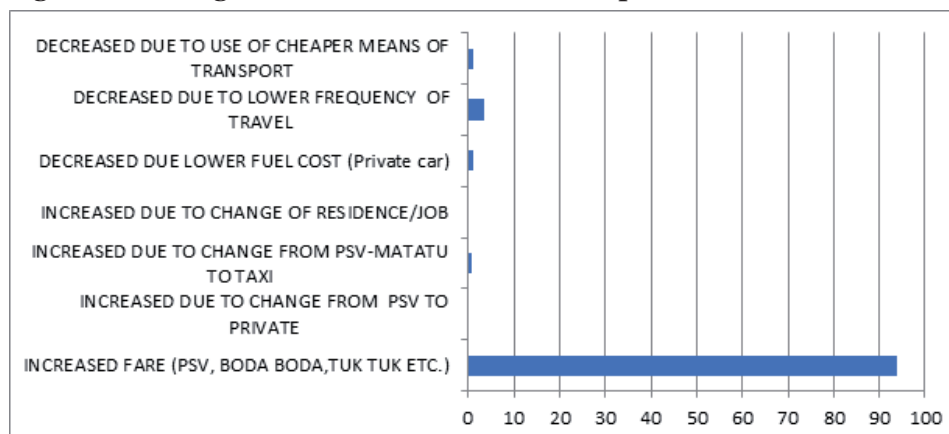
**Figure 6.1: Main means of transport**



Source: KNBS COVID-19 Impact Survey 2020

The KNBS COVID-19 Impact Survey 2020 revealed that 37.4 per cent of the population reported a change in the cost of travel/commute, Figure 6.2. The expenditure on transport increased by 40.9 per cent from Ksh 210 before February 2020 to Ksh 296 in May 2020 for a oneway trip. The main change (93.73%) in transport cost was attributed to increased fares for PSV, *Boda Boda* and *Tuk Tuk*.

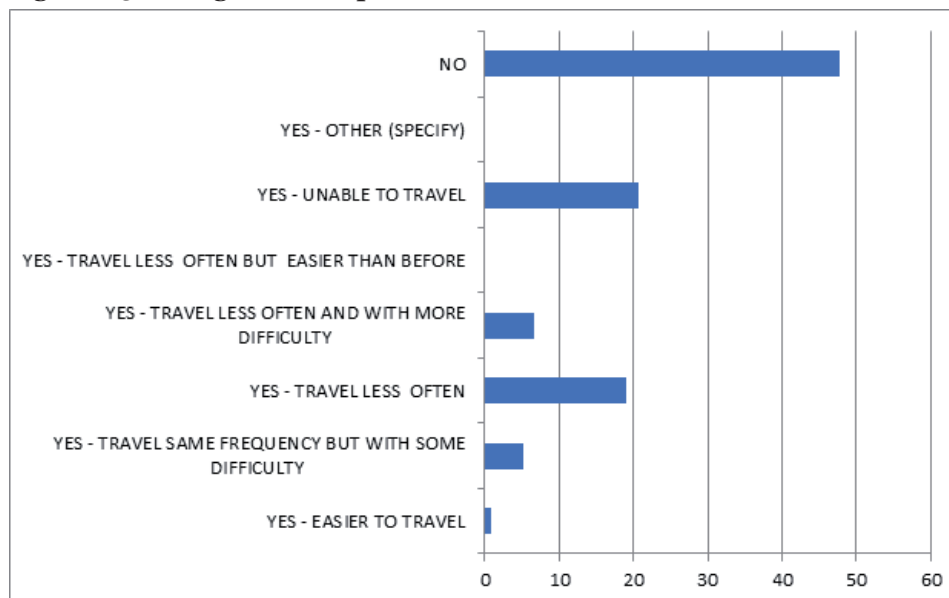
**Figure 6.2: Change in cost of main means of transport**



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

Residents had changed their travel patterns with 19.0 per cent of the population travelling less often, while 5.2 per cent travelled with the same frequency but with some difficulty, and 20.6 per cent were unable to travel. However, 47.6 per cent of the population did not change their travel pattern, figure 6.3.

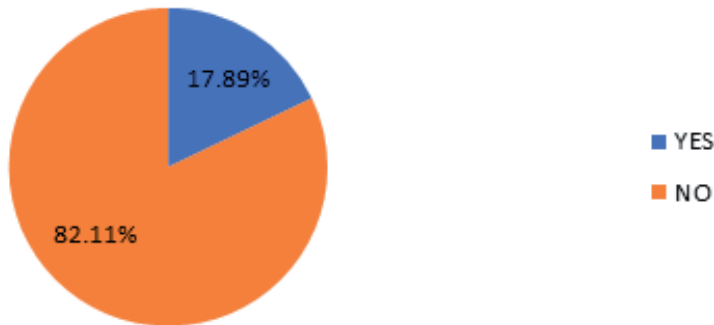
**Figure 6.3: Change in travel patterns**



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

The pandemic has affected delivery of goods and services for 17.9 per cent of households.

**Figure 6.4: Proportion of Residents Whose Service Delivery has been Affected**



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

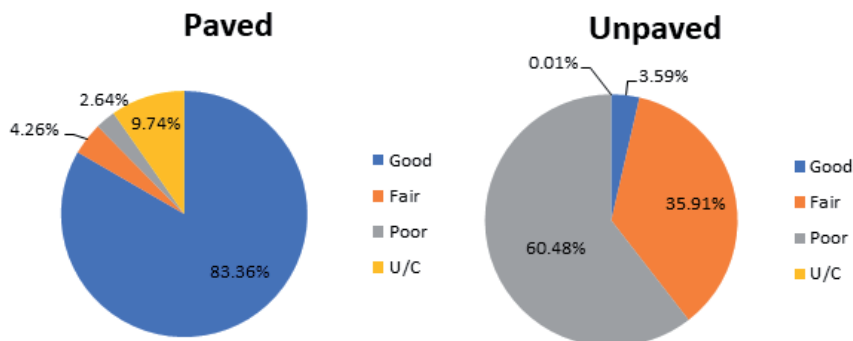
### Potential for revenue collection

The County was allocated a total of Ksh 225,301,202 from the Road Maintenance Levy Fund towards road maintenance in the Financial 2017/18 (OCOB, 2019).

### Road network in Narok County

The county has a total of 10,070.33 Kilometres of classified road network. The paved County Road network covers 22.57km, while the paved National roads cover 220.36km. Out of the total paved road network of 242.93km, 83.3 per cent is in good condition, 4.2 per cent in fair condition and 2.6 per cent in poor condition. The unpaved road network in the county covers 3639.75km (county roads) and 1135.19km (National roads), of this, 3.5 per cent is in good condition, 35.9 per cent fair and 60.4 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 5052.46km, with 1255.73km of narrow roads; that is, road with a reserve of between 4-9 meters, while there is a total of 3796.73km of new roads.

## Constraints Faced

The Rural Access Index (RAI) measures the proportion of the rural population who live within 2km of an all-season road<sup>6</sup>. The county has a RAI of 36 per cent which is below the National Average of 70 per cent, indicating that access to transport in rural areas is below average (KRB,2019). This has negative implications with regard to sectors that rely on accessibility such as agriculture, trade and overall development. The road condition mix of the unpaved network at 60.4 per cent is a constraint to development. Transport has important linkages to the tourism sector providing access to the world famous Maasai Mara and further supports the agriculture and trade facilitation.

### 6.1.2 Opportunities with COVID-19 in 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 by the 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.

### 6.1.3 Emerging Issues

- Poor road conditions for unpaved network
- Reliance on PSV transport requires enforcement of COVID-19 mitigation measures

### 6.1.4 Recommendations

- i) 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.
- ii) Identify a core rural road network for prioritization to improve the rural access index (RAI) from the current 36 per cent with a target to match the national average of 70 per cent.

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

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

<sup>8</sup> Roads 2000 programme [http://krb.go.ke/our-downloads/roadsper cent202000per cent20strategicper cent20plan.pdf](http://krb.go.ke/our-downloads/roadsper%20cent202000per%20strategicper%20plan.pdf)

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

- iii) Sensitize PSV and *boda boda* operators on COVID-19 prevention measures and assist vehicle owners in retrofitting vehicle designs for social distance, hygiene and ventilation.
- iv) Apply labor based and local resource-based approaches for road development and maintenance, where technically and economically feasible, in line with the Roads 2000 national policy<sup>10</sup>. This can be incorporated into the CIDP programme to grade and open new roads.
- v) Improve and expand infrastructure for Non-Motorized Transport (NMT) in urban areas and along roads with heavy -highspeed traffic to promote sustainable mobility options and enhance road safety for all road users. This is in line with the Integrated National Transport Policy 2009 and the Sustainable Development Goals<sup>11</sup>.
- vi) 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 administration is encouraging not only its staff but also other people to take up IT related courses that were being offered through invitations that came through the county. This will enable the people to become tech savvy and able to make use of IT to do trade and other activities. CBK has also encouraged the use of online and mobile transactions in normal activities which has also informed the prioritization of ICT in the next budget. To enhance the development of Information Technology Centre (ITC), the county government has not done much but this is an area that has been prioritized in the next year budget.

---

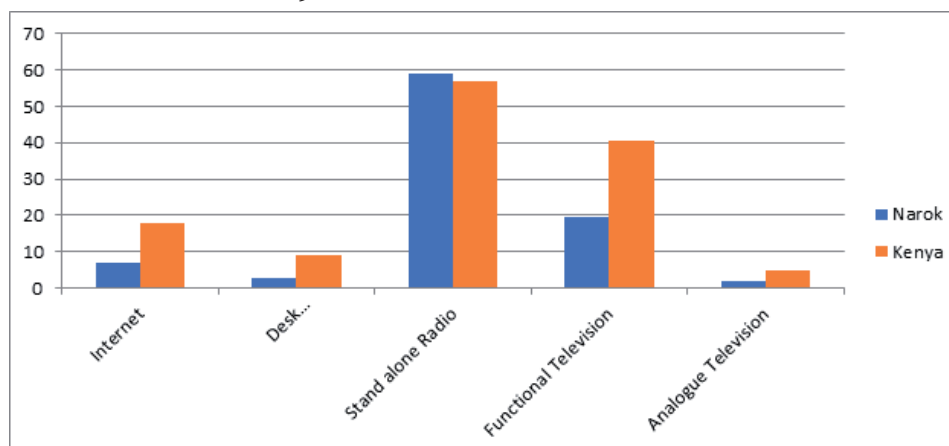
<sup>10</sup> Roads 2000 programme <http://krb.go.ke/our-downloads/roadsper cent202000per cent20strategicper cent20plan.pdf>

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

### 6.2.1 Characteristics of the sector

The analysis of the 2019 KPHC reveals that only 6.9 per cent of the conventional households in the county ‘own’ internet with 2.7 per cent owning a desktop, computer laptop or tablet. Internet access, ICT device ownership and TV ownership is particularly critical not only for access of COVID-19 information, but as well as supporting remote learning by the pupils as well as remote working (Figure 6.6).

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

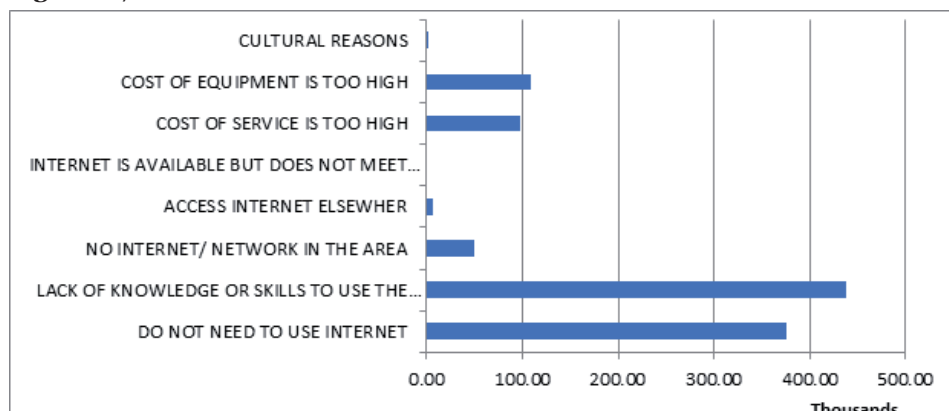


Source: Kenya Population and Housing Census, 2019

Online shopping is not prevalent in the County. 1.5 per cent of the conventional households searched and bought goods/services online. There exists gender disparity in online shopping with more men (1.9 per cent) than women (1.0 per cent) undertaking online shopping.

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

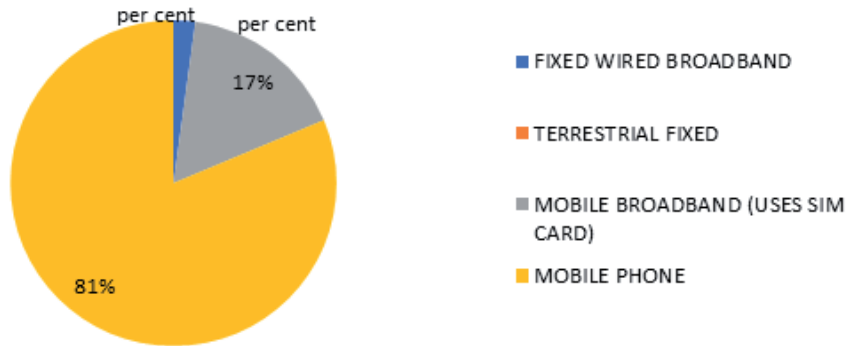
**Figure 6.7: Reasons for Lack of Internet Connection**



Source: KNBS, 2016- KIHBS 2015/16

Approximately 81 per cent of the internet users in the county rely on mobile phone for connectivity, with a marginal population of 17 per cent relying on mobile broadband that uses a sim card for connectivity.

**Figure 6.8: Type of Internet Connection**

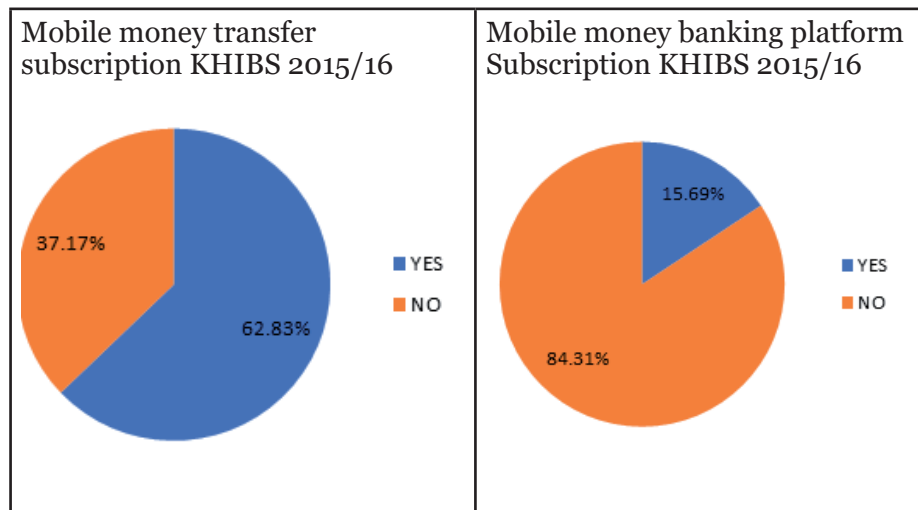


Source: KIHBS 2015/16

Approximately 34.3 per cent of the population aged 3 years and above own a mobile phone which is lower than the national average of 47.3 per cent.

Approximately 62.83 per cent of the people in the county have a mobile money subscription compared with only 15.69 per cent that have a mobile money banking platform subscription (KHIBS 2015/16)

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



Source: KNBS 2016- KIHBS 2015/16

The county experience gender divide in use of internet and ICT devices as well as mobile money subscriptions. Both internet and ICT device use is higher among the male with 15.1 per cent of the men and 9.0 per cent of the women using internet, while 5.0 per cent of the men and 3.2 per cent of the women using Desktop/Laptop/Tablet devices (KPHC 2019). While the usage is below the national averages, the county recorded a similar gender disparity with the national averages in internet and ICT usage.

### **Constraints faced**

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

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

#### **6.2.2 Opportunities for COVID-19 in ICT**

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

#### **6.2.3 Emerging issues**

The County administration is encouraging not only its staff but also other people to take up IT related courses that were being offered through invitations that came through the county. This will enable the people to become tech savvy and able to make use of IT to do trade and other activities. CBK has also encouraged the use of online and mobile transactions in normal activities which has also informed the prioritization of ICT in the next budget. To enhance the development of Information Technology Centre (ITC), the county government has not done much but this is an area that has been prioritized in the next year budget.

#### **6.2.4 Recommendations**

- i) Support programmes in partnership with the private sector that will enable households acquire ICT assets such as smart phones and laptops and increase mobile phone ownership from the low of 34.3 per cent to 100 per cent in line with the global agenda for Universal Access to Mobile Telephony<sup>12</sup>
- ii) Adopt programmes to ensure ubiquitous access to reliable and affordable internet (internet everywhere) by applying aerial and satellite-based communication technologies due to the vast nature of the county.
- iii) Improve the laws and regulations related to information infrastructure, establish standards for the construction of information infrastructure integrated with road,

---

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



- water and electricity infrastructure planning and development, especially for terrestrial IT infrastructure.
- iv) Promote technology adoption and diffusion of IT by collaborating with IT personnel to support the development of ICT competence and skills among the public.
  - v) Enhance internet connectivity to public buildings and key trade centres to boost e-commerce especially for MSMEs in trade and business. The NOFBI programme can be expanded to the sub-county administrative units to further enable deployment of e-governance solutions.
  - vi) Make ICT a standalone sector for planning and budget allocation. This is aimed at giving strategic prominence to planning, budgeting and investment in ICT.
  - vii) Review and implement ICT policies and procedures to manage ICT as provided in the CIDP and mitigate the cyber threats. Collaborate with the national Computer Incident Response Team (CIRT) and the Communications Authority (CA) towards managing cyber threats, disasters and pandemics. This is because enhanced use of ICT is known to raise threats and risks related to cyber-crime and misinformation.

## 7. Housing and Urban Development

Through financing bill 2020, Narok county government has proposed incentives for the housing and urban development by coming up with structures to bridge housing needs by engaging private sectors. While the county does not directly engage in enhancing one of the key pillars of Big Four Agenda, housing development but it improves enabling environment for the private investors. To support private sector development the county government is playing a facilitative role by improving access roads for ease of access within the county.

At the county government level, Narok County is the process of renovating and rehabilitating houses which have not been renovated for a while. Majority of households are headed by men (77.31%) compared to women (22.69%) in the County (KIHBS, 2015/16). There are seven urban centers in the County with a total population of 49.6 per cent males and 50.4 per cent females. The urban land area covers 48 square kilometers with a population density of 2095 persons per sq.km

**Table 7.1: Distribution of population by Urban Centers by gender**

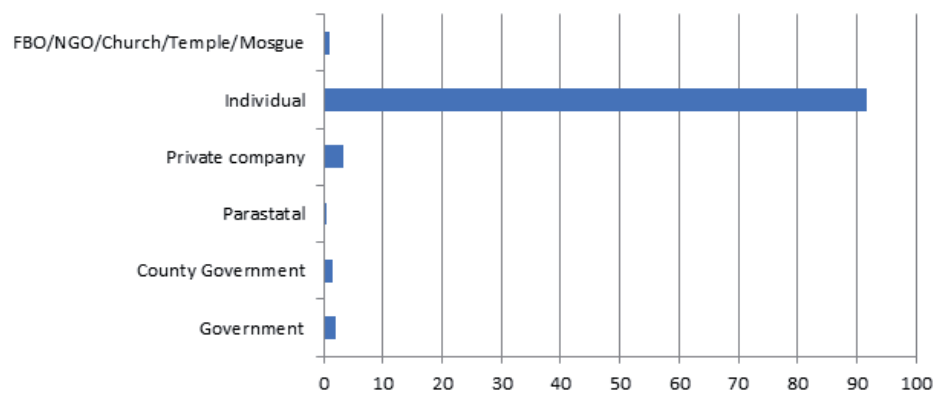
URBAN CENTRE	TOTAL	MALE	FEMALE
Narok	65,430	32,706	32,720
Kilgoris	10,845	5,281	5,563
Lolgorian	6,053	3,017	3,036
Ololunga	5,609	2,756	2,853
Nairagie Ngare	4,954	2,444	2,510
Ntulele	3,390	1,606	1,784
Nyangusu	3,590	1,657	1,933

Source: KNBS, 2019

### 7.1 Characteristics of the Sector

The housing tenure is predominantly owner occupied at 76.9 per cent, with 23.1 per cent of the households under rental tenure. Individuals are the primary providers of rental housing at 91.7 per cent, followed by National Government (2.1%); and Private Companies (3.4%); For those who own homes, 96.7 per cent constructed the houses while 1.4 per cent purchased the house and 1.9 per cent inherited their homes (KNBS, 2019).

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



Source: KNBS, 2019 -Kenya Population and Housing Census

## Housing Quality

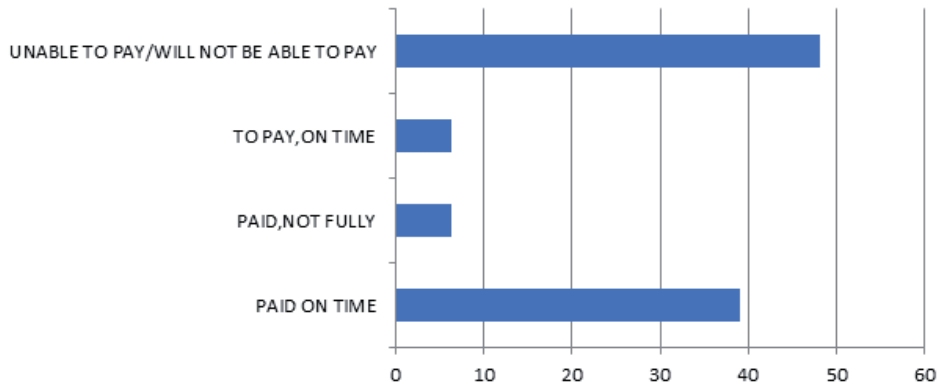
On average, the main dwellings of houses in the County have 2.26 habitable rooms against an average household size of 4.23 persons in a household, translating to approximately 1.87 people per room. According to the UN-Habitat, overcrowding occurs when there are more than three people per room<sup>13</sup>. In terms of housing quality (building material), 33.74 per cent of houses are constructed using finished materials for walls, floor and roofing compared to 66.26 per cent constructed using rudimentary materials (KIHBS, 2015/16). Majority of households (74.7 per cent) have iron sheets for roofing, mud/cow dung walls (60.7 per cent) and Earth/Sand floors (46.3 per cent) (KNBS, 2019).

## Rent Payment

On average, rental households spend approximately Ksh 3611 on rent with a minimum of Ksh 500 and the maximum of KSH. 15000 (KNBS, 2020b). The county recorded a rent to income ratio of 14.94 per cent which is within the acceptable threshold of 30 per cent (KNBS, 2012/13).

<sup>13</sup> Household crowding measure: [https://www.ncbi.nlm.nih.gov/books/NBK535289/table/ch3.tab2/#:~:text=Overcrowdingper cent20occursper cent20ifper cent20thereper cent20are,perper cent20habitableper cent20roomper cent20\(88\).&text=Crowdingper cent20occursper cent20ifper cent20thereper cent20is,per cent20Drooms\)per cent20\(89\).](https://www.ncbi.nlm.nih.gov/books/NBK535289/table/ch3.tab2/#:~:text=Overcrowdingper cent20occursper cent20ifper cent20thereper cent20are,perper cent20habitableper cent20roomper cent20(88).&text=Crowdingper cent20occursper cent20ifper cent20thereper cent20is,per cent20Drooms)per cent20(89).)

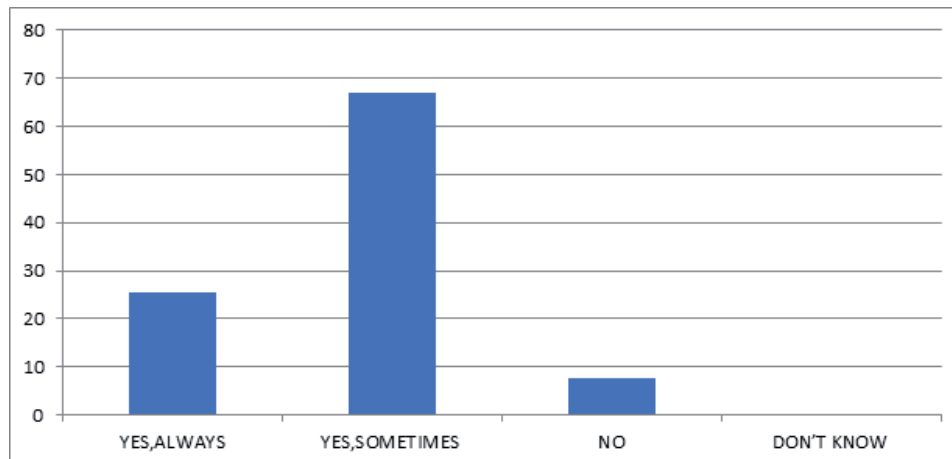
**Figure 7.2: Has your household paid the rent for April 2020 on the agreed date**



Source: KNBS COVID-19 Impact Survey 2020 wave 2

With the advent of COVID-19 pandemic, households’ ability to pay rent has been affected, with 48.2 per cent of the population indicating inability to pay rent on the agreed date for April 2020, figure 7.2, compared to 39.6 per cent of the population that were able to pay rent on the agreed date and 31.8 per cent who paid rent on agreed date before COVID-19 pandemic, Figure 7.3.

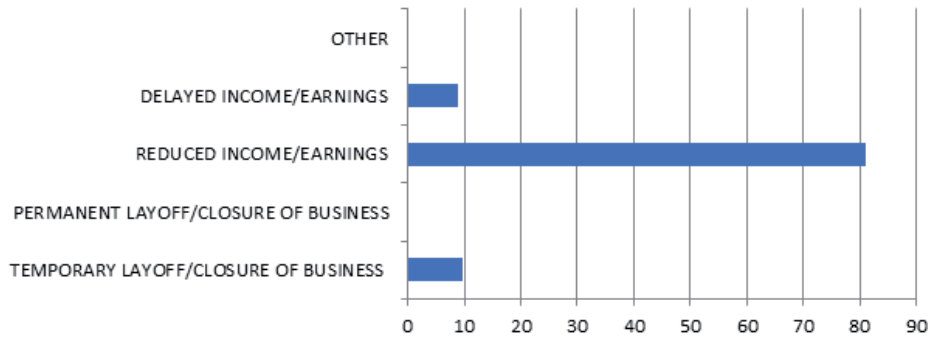
**Figure 7.3: Proportion of residents paying rent per terms of contract**



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 81.1 per cent of the population. The inability to pay rent was attributed to the COVID-19 pandemic by 90.9 per cent of the population.

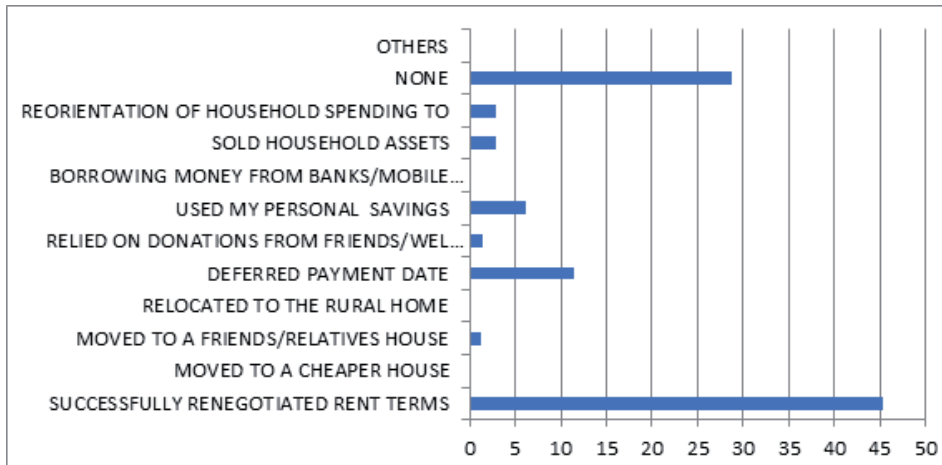
**Figure 7.4: Reasons for not being able to pay rent**



Source: KNBS COVID-19 Impact Survey 2020 wave 2

Majority of the households (76.2 per cent) did not receive a waiver or relief on payment of rent from the landlord, with 14.5 per cent reporting a partial waiver and 2.86 per cent reporting a full waiver. To overcome the effects of Corona virus on payment on rent, majority 45.31 per cent of households renegotiated rent terms, while 28.6 per cent of households did not take any measures. Approximately 6.2 per cent used personal savings to pay rent.

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



Source: KNBS COVID-19 Impact Survey, 2020

## **Energy Source for Cooking**

With regard to primary energy source for cooking, 90.4 per cent of households rely on unclean sources of energy for cooking such as firewood, paraffin and charcoal, which could adversely affect respiratory health of women and children.

### **Constraints faced**

- Household inability to pay rent due to livelihood shocks
- Existing stock of housing units built using rudimentary materials

## **7.2 Opportunities in housing and development**

- Existing stock of owner-occupied homes that can be improved using finished building materials for roofing, walls and floors.
- Through financing bill 2020, Narok county government has proposed incentives for the housing and urban development by coming up with structures to bridge housing needs by engaging private sectors. While the county does not directly engage in enhancing one of the key pillars of Big Four Agenda, housing development but it improves enabling environment for the private investors. To support private sector development the county government is playing a facilitative role by improving access roads for ease of access within the county.

## **7.3 Emerging Issues**

- There are households that occupy dwellings constructed using rudimentary materials.
- At the county government level, Narok County is in the process of renovating and rehabilitating houses which have not been renovated for a while, we want to improve on this, and see how much rent can be raised (the increase) from this.

## **7.4 Recommendations**

- i) Integrate and implement disaster risk reduction and management in County Spatial Plans and urban area plans to reduce vulnerability, build resilience and responsiveness to natural and human-made hazards, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030.
- ii) Improve capacity for urban planning and design and the provision of training for urban planners at all sub-county offices.
- iii) 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.

- iv) Identify and designate urban centers for upgrade pursuant to provisions of the Urban Areas and Cities (amendment) Act, 2019, as provided in the CIDP.
- 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 an increasing household access to clean energy sources and technologies for cooking to mitigate against exposure to respiratory diseases.

## 8. Tourism

### 8.1 Characteristic of the Sector

The main tourist attractions in Narok County include: Physical attractions / nature-based tourism: Cultural and heritage tourism (Rich Maasai culture; Wildlife tourism (Game drives; Maasai Mara National Reserve with 95 species of mammals, amphibians and reptiles and over 420 birds species; The annual wildebeest's migration) alone involves over 1.5 million animals arriving in July and departing in November; 6 registered wildlife conservancies in Narok namely: Enonkishu, Mara; Naboisho, Mara North, Olare Motoroki, Olkinyei and Pardamat); Excursions (nature walks and hot air balloons in the mara game reserve; balloon safaris); Medical tourism (60 registered traditional herbalists and medicine-men in the County). In 2019, the Maasai Mara game Reserve received 286,000 tourists, both domestic and international.

Narok County is well endowed with accommodation facilities. Within the Mara game reserve, there are 28 star-rated hotels, lodges, and camps with a total capacity of 890 rooms and 1794 beds. Within the town there are nine classified hotels with more than 323 beds and over 264 rooms<sup>14</sup>. The county also has potential for enhancing tourism in the following areas which remains unexploited, Sport tourism, Ecotourism and Cultural tourism. Accommodation and food services accounts for 4.5 per cent of the total GCP, while revenue collection from tourism activities in the Maasai Mara Game Reserve accounts for approximately Ksh 900 million (or 90 per cent) of total revenue collection in the County annually. The peak months are July–September which also coincides with peak tourism season in Kenya, when high number of tourists visits the Maasai Mara game reserve to watch the annual Wildebeest Migration<sup>15</sup>.

Despite tourism being the main source of locally generated revenue in the county, the sector was allocated a paltry 1.6 per cent of total budget (or Ksh 403.38 million) in the 2013/14 – 2016/17 period, compared to approximately Ksh 3,600 million it generated during the period.

Several constraints affect growth of tourism sector in the county include lack of an efficiency monitoring and evaluation system in the county government department; there is no requisite capacity to track progress, both at outcome level and programme and project implementation; human-wildlife conflicts as a result of increased competition for pasture and loss of biodiversity within the Maasai Mara National Reserve and the surroundings; coupled with deforestation in the Mau region, and rampant land subdivision and fencing of wildlife corridors, thus restricting the free movement of wildlife; declining number of wildlife due climate change; declining levels of Mara River becoming a threat to sustainability the reserve; reduction foliage due adverse weather conditions; and human activity affecting wildlife migratory corridors.

<sup>14</sup> Tourism Regulatory Authority, 2019.

<sup>15</sup> Narok County CIDP 2018 – 2022.



To ensure the revenue from the game reserve continues to flow the county need to continue investing in infrastructure improvement in the park, programmes and strategies towards reducing encroachment in the park and game reserve areas, demarcation policies, incentives programmes to the communities who give up land for wildlife and programmes on reforestation and environmental conservation.

With regard to linkage with other sectors, apart from the Maasai Mara game reserve, the County is endowed with vast natural resources which include the Mau Forest one of the most important water towers in Kenya and an important source of water and livelihood to the growing population and the Maasai Mara Ecosystem; other forests (Maasai Mau, Enoosupukia, Loita forest, Nyakweri, Nyangores, Nairotia, Olposimoru, Olenguruone); rivers, springs, and wetlands. This calls for enhanced programs to protect the water tower and catchment areas which are vital for existence of wildlife – the main raw material for tourism in the county.

Lack of a properly developed sewerage system and good drainage system in urban centres such as in Narok Town and Kiligoris is a major threat to good sanitation. Lack of these systems has exposed these towns to risk of disease outbreak especially during the rainy season. Management of waste is not properly organized done making the urban centres dirty and posing health challenges. Waste products of about 10 per cent of the households are collected by the local authority, 2 per cent by private firms while 30 per cent of the households use garbage pit. Good sanitation is a prerequisite for sustainability of the tourism sector in the county.

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

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

## **8.3 Emerging Issues**

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

## **8.4 Recommendations**

On the recovery strategy; the County government will

- i) Set up a county research and monitoring center to help in gathering more information on tourism; develop a tourism product diversification plan – to include home stay programme, Agro-tourism, and Eco-tourism projects; M.I.C.E; amusement parks; cultural festivals.
- ii) Exploiting and marketing of under-utilized tourism attraction sites; providing incentives such as concessionary land leases and tax incentives to investors.
- iii) Develop policies on conservation and protection of Maasai Mara game reserve,

- Human wildlife conflict resolution mechanism.
- iv) Operationalize the Maasai Mara Management Plan – through multi-stakeholder involvement.
  - v) Creation conservancies to protect wildlife extinction.
  - vi) Establishment of a wildlife protection unit.
  - vii) Enact land use policy to conserve the Mara water tower catchment.
  - viii) Policy legislation on conservation and preservation of Maasai culture.; Establishment Museums and cultural centers the county.
  - ix) Online tourism marketing strategies.
  - x) Increase allocation of annual total budget to tourism development to enable construction of modern theatre and art gallery to support development of talent in music, visual and performing arts; marketing of sculpture and handicrafts; and upgrading of sports stadia to develop talents in sport.
  - xi) Enhance investment in infrastructural development to promote more conducive environment for the housing sector particularly in the tourist attraction centres.
  - xii) Enforce sanitation and hygiene standards in all accommodation facilities and tourist attraction sites in line with the national guidelines for reopening of hospitality establishments to ensure business continuity.
  - xiii) Conduct research on potential areas for investment in tourism to catalogue information on existing and potential tourism products in each sub county; branding and marketing tourism products; hosting promotional events such as annual tourism and trade investment expos and M.I.C.E events.
  - xiv) Ease charges in the sector by repealing both the tourism and catering levy and other charges that impact the tourism sector.
  - xv) Promote public-private partnerships in conservation and investment. Consider collaboration with the National Museums of Kenya and Non-governmental organization for construction of heritage centers and museums, the re-landscaping of open cultural and natural sites, construction of botanical gardens, organizing cultural festivals and fairs, the identification, documentation, mapping and gazettement of important heritage.
  - xvi) Allocate resources for investment and rehabilitation of tourism-supporting infrastructure, including sports stadia, modern M.I.C.E venues, and roads leading to the physical tourist attraction sites.

## 9. Health

### 9.1 Characteristics of the Sector

#### General health provision in the County

In 2019/2020, the number of health facilities in the county were 207 which comprised of 196 primary health facilities and 11 hospitals. This was an improvement from a total of 122 health facilities in the previous year, 2018. The number of beds per 10,000 population is 18 against the WHO recommendation of 30 beds per 10, 000 population.

**Table 9.1: Health provision**

Year	2018	2019/20
<b>Health facility density</b>		
Primary health facilities	122	196
Hospitals	7	11
Number of health facilities	129	207
Health facility density	2.2	3.0
<b>Bed density</b>		
Hospital beds	1,218	1,223
No. of Beds per 10,000 population	18	18
<b>Human resource density</b>		
Total workforce	702	1,410
Human Resources for Health (Technical)	586	1,138
Number per 10,000 population	5.7	9.5

*Source: MOH (2021)*

The health facilities and personnel serve a growing population of 1,157,873 people according 2019 census. In 2019, total health workforce was approximately 1,410 representing 9.5 health workers per 10,000 population which is below the WHO target of 23 health workers per 10,000.

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

Type of Health Provider	Percentage Distribution of the Population
Government hospital	17.6
Government health centre	23.2
Government dispensary	18.8
Faith Based (church, Mission) Hospital / Clinic	11.7
Community Health	0.3
Private hospital / clinic	31.2
Nursing/ Maternity Home	0.0
Pharmacy/ chemist	0.1
Community health worker	0.0
Shop/ Kiosk	0.7
Traditional healer	0.8
Faith healer	0.0
Herbalist	0.0
Other	0.6
Number of Individuals ('000)	116

Source: KIHBS 2015/2016

Table 9.2 presents the distribution of population reported to have been sick or injured and the type of health provider they visited. Majority of the County residents who reported illness visited private hospitals (31.2) and government health centres (23.2 per cent) followed by those who visited government dispensaries at 18.8 per cent. About 17.6 per cent of county residents who reported illness also visited government hospitals and 11.7 per cent visited Faith Based (church, Mission) Hospital / Clinic.

### Population with health insurance cover

The percentage distribution of the population with health insurance cover by type of insurance provider is presented in Table 9.3. In general, 9.2 per cent of the county population had some form of health insurance cover. The National Hospital Insurance Fund (NHIF) was the leading health insurance provider reported by 90.7 per cent of the population. Employer contributory insurance cover was reported by 2.8 per cent of the population. Private contributions to insurance cover were reported by 2.3 per cent of the population.

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

Source of Health Insurance	Percentage Distribution of the Population (%)
Population ('000)	1,078
Share of population with health insurance (per cent)	9.2
NHIF	90.7
Private-Contributory	2.3
Private-Non-Contributory	0.0
Employer-Contributory	2.8
Employer-Non-Contributory	0.0
Other	0.0
Number of Individuals ('000)	100

Source: KIHBS 2015/16

### Place of delivery

In the 2015/16 KIHBS, women in Narok county were asked the place where children aged 5 years and below were delivered. Table 9.4 shows the percentage distribution of children by place of delivery, in the county. About 61.8 per cent of children were delivered at home which is higher than the national percentage of 31.3 per cent. The proportion of children born in hospitals, health centres, dispensary/clinics was 23 per cent, 9.9 per cent, and 4.5 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 by place of delivery (per cent)
Hospital	23.0
Health Centre	9.9
Clinic/ Dispensary	4.5
Maternity Home	0.4
At Home	61.8
Other	0.0
Not stated	0.4
<b>Number of Individuals ('000)</b>	<b>200</b>

Source: KIHBS 2015/16

## Immunization for children

The 2015/16 KIHBS covered data on measles immunization for children below 5 years at; 9 months (Measles I) and at 18 months (Measles II). The information was collected from vaccination cards where they were available while mother's recall was used where the card was not available. Table 9.5 presents information on the proportion of children immunized (from vaccination cards) against measles. The analysis focused on children aged 12-23 months (or one year). The county had 55.8 per cent of the children aged 12-23 months were fully immunized against measles at 9 months while 26 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	57.1
	Yes, Not Seen	36.2
	No	6.3
	Not stated	0.4
Measles Vaccination	Measles I (At 9 months Card)	55.8
	Measles II (At 18 months Card)	26.0
	Measles II (Mother/ Guardian memory)	35.8
	Either (card or memory)	91.6
<b>Number of Individuals ('000)</b>		200

Source: KIHBS 2015/16

## Health outputs

Despite the presence of substantial number of health facilities in the county access to health services is still low. A large proportion of the population (70 per cent), travel for more than 5 kilometres to access the nearest health facility. Furthermore, some patients face insurmountable challenges in accessing health facilities due to poverty and poor impassable roads. Most of the health facilities lack adequate infrastructure, drugs, equipment, and trained personnel to attend to some of the medical needs of the patient. Many incomplete health infrastructure projects further compound this situation across the county. There is therefore needed to provide adequate funds towards completion of these projects and equipping, address poverty, high cost of medical services and human resource to promote healthy living in the county. The most common diseases in order of prevalence in the county include malaria (30.6 per cent), diseases of the respiratory system (25%), flu/common cold (20%), diarrhea (5.5%), skin infections (5.5%), stomachache (4.3%), HIV (3.6%), eye infection (2.9%) and others (2.6%).

There are efforts by the concerned departments and agencies to enhance health education, training of community health workers and partnership between the government and other service providers in provision of preventive services. Current emphasis is on reducing child mortality, promoting maternal health as well as mitigating vulnerability of HIV/AIDS and other major diseases. This focus is expected to greatly contribute to the realization of key targets under the Millennium Development Initiative.

The nutrition status of the children under 5 years in the county is as follows; The Underweight children were 12 per cent, the stunting was 32.9 per cent, and the wasting was 2.4 per cent. The county has serious health challenges resulting from malnutrition especially in Trans mara east, Narok south and some parts of Narok north. Therefore, strategies should be put in place to promote sustainable community-based activities. However, strategies will aim at promoting sustainable community-based activities in the areas of agriculture, nutrition, and health, with the aim of minimizing malnutrition among children aged below 5 years. Moreover, adult malnutrition especially women of childbearing is also on the rise as evidence based by low birth, premature birth, congenital abnormalities, and emergence of non-communicable diseases especially diabetes and hypertension (75 per cent requires diet modification).

Immunization coverage in the county is relatively low with fully immunized children at 59 per cent. Mothers how have access to skilled delivery stood at 40.3 per cent while children born at home were 60.7 per cent (KDHS, 2014). As at December 2021, 77.2% of children in Narok were fully immunized (Narok County HIS).

HIV prevalence rate in the country is 6 per cent, an average of 1.6 million people. However, the prevalence rate in Narok County is 2.7 per cent, an average of about 37,713 persons. ART adult coverage is 45 per cent while ART coverage for children is 60 per cent.

**Table 9.6: Health indicators in Narok county**

Key Health Indicators	County Estimates
<b>Maternal and Child Services</b>	
Skilled delivery (per cent)	40.3
Children born at home	60.7
Fully immunized child	58.5
<b>Child Mortality</b>	
Infant mortality (* /1000)	39
Under-5 mortality (* /1000)	52
Neo-natal mortality (* /1000)	0
<b>Nutrition Status</b>	
Stunted children (per cent)	32.9
Wasted children (per cent)	2.4
Underweight children (per cent)	11.9
<b>HIV (per cent)</b>	
HIV adult prevalence (per cent)	2.7

Children with HIV(No.)	0
ART adult coverage (per cent)	45
ART children coverage (per cent)	60

Source: KDHS, 2014; DHIS 2018

### Effects of COVID-19

A substantial budget reallocation towards cushioning the county from the COVID-19 effect. Through a supplementary budget, 160 million was reallocated towards cushioning the county from COVID-19 effects. The county government has enhanced the capacity of health sector by increasing the number of personnel (nurses and medical staff) and equipping all health facilities in preparation of any cases reported and ensure the medical staff don't strain and able to run the normal daily tasks.

There is a concern that people are no longer going to the hospitals for fear of being victimized and discriminated upon thereafter. The county has thus separated designated areas and isolation places to deal with COVID-19 cases so that the public may get health services without fear as the hospital's operations run normally. The county has implemented the social distance and working from home directive by ensuring that only, those offering essential services like health workers goes to the office, the rest of the employees work from home. More nurses and medical staffs have been employed to reinforce human resource in hospitals.

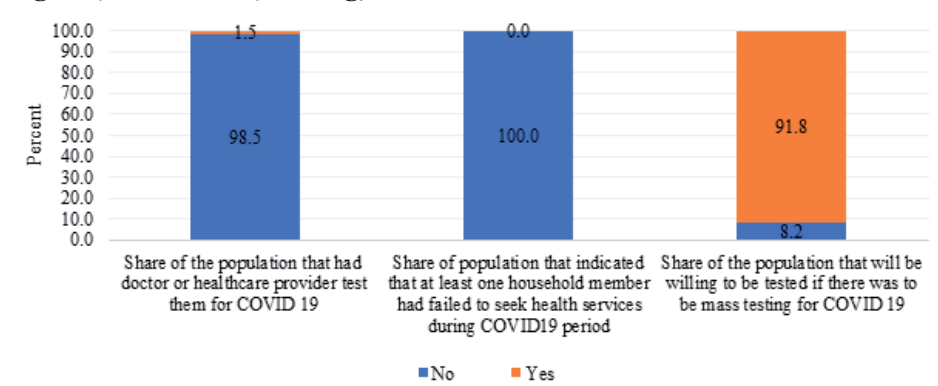
Despite the fear brought about by COVID-19, Service delivery continued in all the health facilities although workload reduced drastically after the first case of Corona virus disease was announced in the country as the public viewed the health facilities as environments for contracting COVID-19.

There has been Continuous health education, which has seen a change in this misconception, and the patients flow is almost back to normal. The county is following guidelines and protocols for prevention of COVID-19 continue to be practiced in the health facilities with screening and triaging of patients on arrival at the facilities. At community level, the CHVs have been trained and sensitized on COVID-19 and they continue to pass the necessary information to the other members of the community. However, outreaches to the community had been temporarily halted but are back to normal at present.

In June 2020, Kenya National Bureaus of Statistics conducted a survey of COVID-19. The results showed share of the population that had doctor or healthcare provider testing or confirming to them the status in regards COVID-19 was estimated at 1.5 per cent in 2020 (COVID-19, Wave 2 survey). This small number shows that there is a large population of people in the county who have not yet been tested for COVID-19. Further, no member of the population indicated that at least one household member had failed to seek health services and 91.8 per cent of the population indicated they will be willing to be tested if there was mass testing for COVID-19. Therefore, a lot of awareness need to be created among the county population.



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



Source: COVID-19 Wave 2 (June 2020)

Teenage pregnancies, Sexual and Gender Based Violence (SGBV) are some of the health issues affecting the youths in Narok County. The closure of schools due to COVID-19 has adversely affected children socially, this has seen one in ten girls being victims of teenage pregnancies this is alarming given the fact that only 2 per cent of teenage mothers always return to school.

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

The county government has hired more health workers during this period; this goes along in meeting the counties commitment to the Universal Health Coverage. With support of the national government and counties own initiatives trainings and awareness have been undertaken to build capacity of the health workers to enable enhance the mitigation measures required during this period. Tools of trade such as protective gears, masks have also been provided.

Lack of adequate health infrastructural facilities across the county, negatively impact on access and equity in the availability of essential health care aimed at promoting a healthy population that will effectively participate in the development of the nation. Those unable to access the health services are sometimes rendered economically unproductive. In cases where the sick person is the breadwinner, the family may become impoverished. This has led to high cases of dependency. Inaccessibility to health facility has also led to high mortality rates.

There are incidences of health facilities that are not being utilized especially those constructed under the various funding programmes. This is because they lack necessary equipment and

are understaffed. Further, there are inadequate public education programmes to encourage Kenyans to change their lifestyles in ways that will improve the health status of individuals, families and communities.

The county is undertaking awareness to dissuade the fears among the public most of whom had stopped going to the hospital thus cutting the revenue stream. The local productions of masks have provided opportunity for revenue creation. The county was also experiencing challenges in meeting her local revenue collection. The county has been experiencing downward trend in revenue collection due to weak systems in place for collecting revenue. However, with more sensitization about COVID-19, people will resume looking for health services from the hospitals and other health centers. This will increase revenue collection in the county.

Main raw materials in the health sector are the services offered by health professionals and other employees. Medicine and drugs are also key materials. County is also producing masks, which are in high demand during this COVID-19 period. Access and provision of these materials were affected by the outbreak and spread of the virus, resulting to higher demand relative to the supply. Most of the health services in health centres and dispensaries are government funded and so the facilities rely heavily on national share of the funding. To limit the spread of disease and create additional inpatient capacity and staffing, many hospitals initially closed down outpatient departments and postponing or canceling elective visits and procedures. These changes, while needed to respond to the COVID-19 pandemic, potentially threatened the financial obligation of hospitals.

The county is also struggling with the health sector after devolution. There were no enough structures to handle the responsibilities given to the county government. There are no enough health workers to serve the large population in the county. In addition, there is a problem of procurement of medicine and other drugs as the counties are not allowed to procure for drugs themselves but are forced to buy from KEMSA. This sometimes results into delays in delivery of the needed drugs. The county also does not have adequate bed capacity to handle all her patients. It is in the wake of COVID-19 outbreak that the county has rushed against time to establish more ICU bed.

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

Advancement in ICT also helps improve health sector. This is because with ICT, it is easy to scan for diseases and manage the treatment. With advancement in ICT, it is possible to do diagnosis to patients and treat them promptly. A good example is the scan for pregnant mothers and cancer patients. Some countries such as Rwanda, drones are being used to deliver bloods. This is helping in mortality rate reduction. Good water and sewerage facilities also contributes greatly to reduction of diseases such as cholera, typhoid and other waterborne. This is because by maintaining good hygiene such as washing hands after visiting toilets, washing fruits before eating and boiling/treating drinking water. Good disposal of waste by avoiding open defecation and using toilets also helps reduce spread of diseases spread through human waste.

Agriculture sector also plays a key role in ensuring that people get balanced diet and good nutrition. This reduces cases of malnutrition and stunted growth among children due to lack of certain nutrients and vitamins. Agriculture also serves as a source of revenue and employment mostly for the females. This reduces cases of family conflicts and stresses, hence reducing mental diseases.

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

There is an enhanced collaboration within Metropolitan counties, which has resulted into training of the health officers and all the frontline staffs. This collaboration has also seen enhanced intercountry screening and testing centralized at the Coast general hospital. Additionally, due to reduced social contacts many meetings have been taking place virtually. This has provided an opportunity for the development of ICT. This has saved the county money, which could have used in the movement from place to another, conference hall fee as well as accommodation for her staff. This has also promoted of ICT and other communication channels within the county hence speedy transfer of information.

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

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 spread of pandemic across counties it has created fear among the residents and some of them have opted not to visit the hospital in fear of contracting the virus.

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

## **9.3 Recommendations**

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

- (i) Create awareness on availability and importance of free maternity services and address other constraints to access of maternal health services in the county to address fear of contracting COVID-19 in event of visiting a health facility.
- (ii) The county to enhance COVID-19 sensitization to the community through Health promotion messages and distribution and printing of information, education and communication materials (IEC), provision of hand washing facilities to the community level, provision of hand washing soap and fumigation exercises in the

markets and other busy towns and health facilities.

- (iii) The county to provide frontline caregiver mental and physical health assessment and support during health crisis such as the COVID-19 pandemic, psychological support for families of frontline health care workers affected by the working conditions and stringent measures effected during COVID-19 response- the 14 days' isolation on exposure. This includes paying frontline health workers allowances and salaries in good time to boost their Morales.
- (iv) The county to revamp, expand, modernize and equip health facilities, including, Narok County Referral Hospital recruit additional of public health officers and community health workers to strengthen preventive and primary health systems in the county.
- (v) The county to allocate more funds to health sector and prioritize services for family planning and reproductive, maternal, newborn, child, and adolescent health (FP/RMNCAH) across all pillars of the health budget.
- (vi) The county to invest in research and development to spur innovation in health sector including in the area of medicine.
- (vii) Implement a comprehensive human resource health management system including undertaking training needs assessments and information system to ensure skilled and motivated health care workers are equitably deployed.
- (viii) Promote and support public and community health including the installation of hand washing facilities in homes and institutions such as schools, tertiary education institutions, workplaces and health care facilities within Narok county.

## 10. Education and Training

### 10.1 Characteristics of the Sector

#### General Education Provision in the County

Narok County has a total of 689 pre-primary centres and 624 primary schools in the county. The teacher to pupil ratio is 1:51 on average. The gross enrolment rate is approximately 89 per cent while the net enrolment rate is approximately 79.5 per cent. Dropout rate is a serious concern mainly due to nomadic pastoralist way of life particularly with the Masaai community who are pre-dominant in the area. At 8 per cent, it implies that 17,072 pupils drop out of school.

The total number of secondary schools in the county is 77. The ratio of teachers to students is 1:62. The average age of attendance is 14 years. Completion rate at this level is 72 per cent. The county had only two provincial secondary schools which have now been upgraded to national schools, Ole Tipis girls and Kilgoris high school. Due to the vastness of the region and a smaller number of the schools most of the schools are boarding. For day schools, 65 per cent of students travel an average of 3 Km to reach school.

The county has approximately 689 ECD centres with over 52,384 children. The gross enrolment in the county is 46 per cent. The ratio of teachers to pupils is 1:46. The average years of attendance are 3. Out of the total enrolment in the ECD centres, 82 per cent proceed to join the lower primary school. This implies that 18 per cent of pupils who complete pre-primary school education do not proceed to primary school.

The county has only one institution of higher learning, Maasai Mara University which attained its charter status on February 12th, 2013. On the same day, the university changed named from Narok University College to Maasai Mara University. There are a total of 9 vocational training centres (youth polytechnics), 1 institute of science and technology and 1 private accredited private college. With the high level of population growth rate of 4.7 per cent, there is need for more tertiary institutions, to nurture the youth. Youth polytechnics should be increased to tap most of the youth in the informal sector.

About 93.3 per cent of public primary schools in Narok County have been installed with ICT infrastructure and devices under the Digital Literacy Programme (DLP) (ICT Authority, 2019). The infrastructures include learner digital devices (LDD), teacher digital devices (TDD) and the Digital Content Server and Wireless Router (DCSWR).

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

The Gross Attendance Rate (GAR) for pre-primary school was 90.6 per cent while that of primary school and secondary school was 104 and 37 per cent respectively in 2015/16 (Table 10.1). Gross Attendance Ratio (GAR) represents the total number of persons attending school regardless of their age, expressed as a per centage of the official school age population for a specific level of education. The GAR for pre-primary school was higher for males, 99.3 per cent, compared to that for females, 81.6 per cent. The GAR for primary school was higher for females, 108.7 per cent, compared to that for males, 99 per cent. The GAR for secondary school was higher for males, 46.5 per cent, compared to that for females, 29.7 per cent. Net Attendance Ratio (NAR) is the total number of persons in the official school age group attending a specific education level to the total population in that age group. Table 10.1 shows that total NAR for pre-primary, primary and secondary school was 47.7 per cent, 76.1 per cent and 20.9 per cent, respectively.

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

Education Level	Gender	Gross Attendance Ratio	Net Attendance Ratio
Pre-Primary School	Male	99.3	44.5
	Female	81.6	48.9
	Total	90.6	47.7
Primary School	Male	99	71.0
	Female	108.7	81.0
	Total	104	76.1
Secondary School	Male	46.5	20.7
	Female	29.7	21.2
	Total	37.6	20.9

Source: KIHBS 2015/16

## Basic education gross and net enrolment rate

The pre-primary gross enrolment rate in the county was 84.8 per cent in 2019 and while the net enrolment rate was 41.2 per cent. The Gross Primary and Secondary enrolment rates stood at 96.1 per cent and 60.2 per cent respectively in 2019 while the Net enrolment rates (NER) were 70.4 per cent and 30.4 per cent for primary school and secondary school respectively during the same period.

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

<b>Pre-primary</b>	2019
Gross Enrollment rate (GER) (per cent)	84.8
Net Enrollment rate (NER) (per cent)	41.2

Gender parity index	0.97
<b>Primary</b>	
Gross Enrollment rate (GER)(per cent)	96.1
Net Enrollment rate (NER) (per cent)	70.4
Gender parity index	0.98
<b>Secondary</b>	
Gross Enrollment rate (GER) (per cent)	60.2
Net Enrollment rate (NER) (per cent)	30.4
Gender parity index	0.93

Source: KNBS (2021)

High rate of school dropouts can be attributed to factors like Harsh environment, Early marriages mostly among the girls, teenage pregnancies where girls drop out of school after becoming pregnant for the fear of ridicule by colleagues, Lack of school fee due to poverty especially if one is admitted in a boarding school, Drug and Substance abuse, school absenteeism by teachers and pupils and indiscipline among some pupils leading to expulsion.

These challenges have been contributed by many factors such poor parenting which leaving children unguided, poverty which pushes girls to be married at early age, negative cultural practices such as FGM and forced early marriages, peer pressure and easy drugs accessibility. To address the issues, there is need to create awareness against drug and substance abuse, offer guidance and counseling to students, introduce free and compulsory secondary education, discourage negative cultural practices that affects school attendance and ensure there is no teacher absenteeism

## Literacy

The analysis of literacy is based on respondents' self-assessment as no reading and writing tests were administered during the data collection. Further it was assumed that anybody with secondary level of schooling and above could read and write. The percentage distribution of population aged 15 years and above by ability to read and write is presented in Table 10.3. The proportion of literate population in the county was 69.3 per cent with the male population being more literate (76.4 per cent) compared to their female counterparts (62.3 per cent).

**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	69.3
	Illiterate	28.3
	Not Stated	2.4
	<b>Number of Individuals ('000)</b>	539
Male	Literate	76.4
	Illiterate	20.2
	Not Stated	3.4
	<b>Number of Individuals ('000)</b>	268
Female	Literate	62.3
	Illiterate	36.3
	Not Stated	1.4
	<b>Number of Individuals ('000)</b>	271

Source: KIHBS 2015/16

### Educational Attainment

The distribution of population aged 3 years and above by educational qualification attained is presented in Table 10.4. Approximately 65.3 per cent of the population do not have any educational qualification. This is high than the national percentage of 49.7. Only 1.1 per cent of the population has attained university degree. The proportion of the population with CPE/KCPE qualification is 15.7 per cent and that of KCE/ KCSE qualification is 9.4 per cent.

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

Highest Educational Qualification	Percentage Distribution of Population
None	65.3
CPE/ KCPE	15.7
KAPE	0
KJSE	0.2
KCE/ KCSE	9.4



KACE/ EAACE	0
Certificate	2.1
Diploma	1
Degree	1.1
Basic/post literacy certificate	0.1
Other	0
Not Stated	5.1
Number of individuals ('000)	777

Source: KIHBS 2015/16

Percentage distribution of Narok County residents aged 3 years and above who had ever attended school by the highest level reached, and sex is presented in 10.5. The proportion of males who had reached primary school level was 55.1 per cent while that of females was 62.3 per cent. Except for primary school level and college (middle level), the proportion of males who had reached other levels of education were comparatively higher than females. For instance, for all persons who reported to have attended school, 16.5 per cent of males and 13 per cent females had reached pre-primary school level in the County. There was a high disparity between the proportion of persons who had reached university education level, with male recording a higher percentage than female at 1.8 per cent and 2.3 per cent, respectively.

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

Educational Level	Gender	Percentage Distribution of Population 3 Years and above
Pre-primary	Male	16.5
	Female	13
Primary	Male	55.1
	Female	62.3
Post primary vocational	Male	0.2
	Female	0.4
Secondary	Male	16.9
	Female	12.8
College (Middle-level)	Male	4
	Female	4.1
University	Male	1.8
	Female	2.3
Madrassa / Duksi	Male	0
	Female	0
Other	Male	0
	Female	0.1

Not Stated	Male	5.5
	Female	5
Number of Individuals (‘000)	Male	397
	Female	380

*Source: KIHBS 2015/16*

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 as well as poverty which leads to school dropout as students cannot afford school fees.

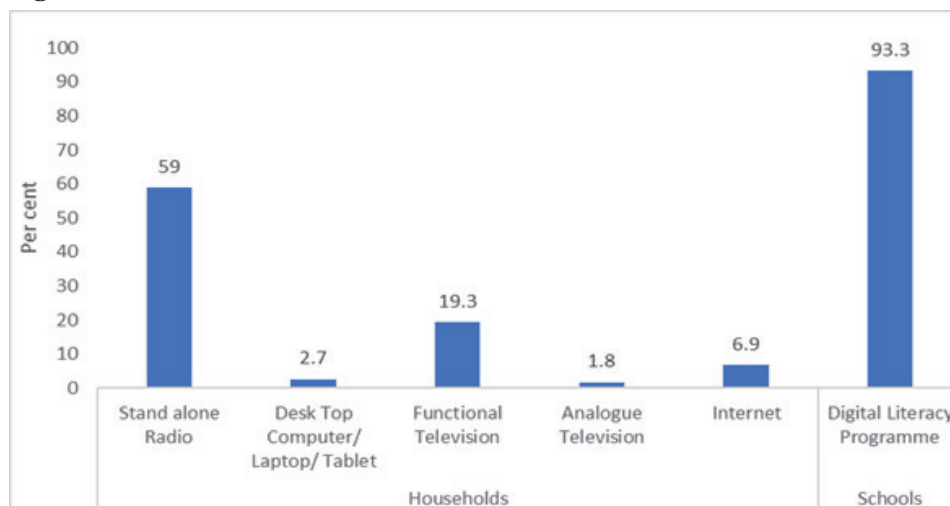
Just like other counties, many people in Narok County lost their jobs because of the COVID-19 pandemic. Private schools were forced to lay off both teaching and support (casuals) staff because they could not sustain their salaries. Public schools faced challenges in making payment for the other expenses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

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

### **ICT in education**

The county has low internet access (69.1 per cent) which constrain online learning across the County. Furthermore, only 2.7 per cent of the households had access to ICT equipment such as laptops and computers. This makes it difficult for the pupils and other students to benefit from national learning programme which had been started by the government. Even if the programme was to be done through radio, it would be difficult since only 59 per cent of the county population has a radio.

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



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

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

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

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

### **10.3 Emerging Issues**

The County with support from stakeholders will need to continue to invest in early childhood development through infrastructural development to allow for adequate social distancing; deployment of ECDE teachers, provision of sanitation facilities and enhanced school feeding programme. To achieve these objectives, the county will require to partner with the national government and private sector to enhance ECDE and vocation training through infrastructural development as well as equipment of all ECDE, primary, secondary and vocational training, and University branches in the County with adequate WASH and adequate learning spaces upon reopening. High cases of school dropout especially transition from primary to secondary level of education. There is also the issue of drug and substance abuse among the students which need to address has it has great impact on education. The issue of few numbers of teachers serving large number of pupils and students. Negative culture that is discouraging school attendance especially for the girls.

### **10.4 Recommendations**

- (i) The County with support from stakeholders should continue to invest in early childhood development through infrastructural development to allow for adequate social distancing; deployment of ECDE teachers and provision of sanitation facilities.
- (ii) The county should involve communities to mobilize learners when schools will be reopening process and while deepening implementation of COVID-19 mitigation measures. The county will combine community participation and large-scale direct communication campaigns to parents, and where possible, increase attendance options to accommodate all children, including those with highest risk of dropping out, also promote back to school campaign and community outreach to ensure that no child is being dropped out of school due to COVID-19 emergency.
- (iii) The County should prioritize projects that improve school water, sanitation and hygiene facilities and management in order to reduce future effect of similar or related outbreak while promoting public health in learning institutions.
- (iv) The county should promote remedial/catch up lessons for learners who might have lagged behind also schools to utilize ICT platforms and have a depository of teaching and learning materials that learners could use at their own time and while at home.
- (v) The county should provide financial or in-kind support, such as school feeding, to help families overcome the increased costs of attending school, also provide psychosocial support to teachers and learners.
- (vi) Concerted efforts will also be required to fight drug and substance abuse among the youths in the county. This can be done through counseling and ensuring that they are not idle especially this period when learning institutions are locked.
- (vii) Government needs to come in and support private institutions which are facing threat of closure due to losses because of closing school indefinitely. This can involve giving grants and loans to the private schools.

## 11. Social Protection

### 11.1 Characteristics of the Sector

#### Sources of vulnerabilities in the County

According to the KNBS census 2019, Narok County has a population of 1,157,873 of which 2.4 per cent are the elderly and 0.9 per cent are people living with disabilities. The overall poverty rates in the county stand at 76 per cent which is higher than the national average of 36.1 per cent. The county's food poverty levels are at 23 per cent and 22 per cent of the total population is multidimensionally poor. Further, about 18 per cent of the children population is stunted. The impact of the COVID-19 to the county's economy cannot be gainsaid.

#### Severe Shocks to The Households

Severe shocks have had negative impact to the household's economic and social welfare of county residents. Table 11.1 presents the proportion of households by the first severe shock in the county. Major shocks in the county were Crop disease or crop pests which was experienced by 31.4 per cent of households followed by drought or floods affecting 18.2 per cent while the death of livestock affected 11.4 per cent of the households. Death of other family member and large price of food are other experienced shocks affecting 6 per cent and 6.7 per cent of households, respectively.

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

First Severe Shock	The proportion of households (per cent)
Droughts or Floods	18.2
Crop disease or crop pests	31.4
Livestock died	11.4
Livestock were stolen	1.5
Household business failure, nonagricultural	2.6
Loss of salaried employment or non-payment of salary	0.5
End of regular assistance, aid, or remittances from outside the household	0.3
Large fall in sale prices for crops	2.4
Large rise in price of food	6.7
Large rise in agricultural input prices	2

Severe water shortage	5
Birth in the household	0
Death of household head	1
Death of working member of household	0
Death of other family Member	6
Break-up of the household	1
Bread winner jailed	-
Fire	2
Robbery / Burglary / Assault	1
Carjacking	-
Dwelling damaged, destroyed	-
Eviction	-
Ethnic/ Clan Clashes	2
Conflict	0
HIV/ AIDS	-
Other	-
<b>Number of households with Shock</b>	<b>207,000</b>

Source: KIHBS 2015/16

### Distribution of Social Assistance Beneficiaries

Households in the county received various forms of social assistance or transfers or gift either in form of a good, service, financial asset or other asset by an individual, household or institution. Transfers constitute income that the household receives without working for it and augments household income by improving its welfare. Cash transfers include assistance in form of currency or transferable deposits such as cheque and money orders. The proportion of households that received cash transfers by source, household headship, residence and county is presented in Table 11.2. Overall, 20 per cent of the households received cash transfers. A higher proportion of households received transfers from within the country (73 per cent), mainly from individuals (82 per cent) while external transfers constituted 16 per cent.

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

		Beneficiaries
	Total Number of Households	223,000
	Households receiving transfers ( per cent)	20
From Inside Kenya	Individual	16,225
	Non-Profit Institution	689
	National Government	475
	County Government	331
	Corporate Sector	50
Inside Kenya		17,770
Outside Kenya		39
Total		12,705
<b>Number of households that received transfers</b>		<b>44,000</b>

Source: KIHBS 2015/16

Children in the county also become vulnerable due to domestic challenges like poverty, domestic violence, Female Genital Mutilation, pupil's teachers' relationships, rape and forced early marriage and discrimination against children with disability. Some members of the community still practice FGM and early marriages forcing girls out of school. There are many cases of pregnant primary school girls who drop out of school. Other challenges facing the girl child are threats from parents in case they report violation to the authorities. Both girl and boy child are also engaged in child labour due to poverty. The county has few Non-Governmental Organizations which support development of the area. The main NGOs in the county include World Vision, World Concern, Action Aid among others. The NGOs are mainly involved in water and sanitation, health, education and on social protection.

There are 251 women groups and 260 youth groups in the county. The main objective of these groups is to support youth and women in individual development and income generating activities in order to reduce poverty. In addition, the groups are used as an entry point for both Government and Donor interventions on poverty, HIV/AIDS and environment. The Youth Affairs department has continued to promote youth development by designing programmes that build young people's capacity.

Nevertheless, women and youth groups continue to experience unemployment incidences as well as difficulties in accessing the loan capital from mainstream financial institutions due to lack of collaterals. These groups of people also represent the poorest in the county. They are also scantily represented in top decision-making levels in the county. County

government in conjunction with the national Government is set to employ 3,266 youths under Kazi Mtaani programme, a move that will see the recruited youth earn a total of Sh.16.4million per month. 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.

Livestock Markets were closed which mostly serve as places of trade. Most people in this market are females. This has therefore affected their welfare in terms of finances and access to food and other goods. This has an impact of lowering their living standards. Livestock markets were closed making it hard for people to sell their livestock which serves as a main source of income. This has therefore reduced their income with some operating at losses. Shops and Kiosks, social centers such as club and bars, hotels have been affected by the curfew and social distance requirements thus reducing the amount of income that they get. Unemployment rate in the county has increased due to close of many businesses and learning institutions. This has led to the decline in living standards and family conflicts due to limited sources of income.

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

Sources of revenue collection within the county were affected by COVID-19. From the tourism to the farming industry. But the situation improved owing the reopening of the county in July 2020. More people have been visiting tourist sites such as Maasai Mara as the country promotes local tourism due to movement in the country restrictions. This has boosted the revenue collection which had already nose-dived.

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



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

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

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

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

## **11.2 Opportunities with COVID-19 in social protection**

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

## **11.3 Emerging Issues**

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, counselling 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. Further, the pandemic has exposed the level of lack of comprehensive social protection at the county level.

#### **11.4 Recommendations**

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 Narok county Government to:

- i. Form economic block partnership to ensure borders are manned and enhance cross border screening especially among long distance drivers. This will drastically slow the spread of the virus.
- ii. Conduct mass civic education among the people on COVID-19 prevention measures, how to handle an infected person and avoidance of stigmatization of the affected person.
- iii. Enroll more county residents in welfare programmes such as NHIF which will ensure that they access medical treatment in case of falling sick.
- iv. Give tax exemption for the SMES who have suffered losses in their business as result of diseases outbreak.
- v. Create a kit where they can collaborate with local banks in offering loans to the SMEs to restart and boost their businesses.
- vi. Provide food and other basic wants for the elderly since their movement have been reduced as they are at great risk of contracting the virus. Therefore, their life has been affected and cannot afford to feed themselves anymore.
- vii. Have programmes to incorporate youths in development are needed. This will ensure they do not get involved in drug and substance abuse and other crimes. More employment opportunities to be created for the youths. This will ensure they do not remain idle hence joining terror groups.

## 12. Labour Participation

### 12.1 Characteristics of the Sector

#### Sources of employment in the County

The main economic activities in the county are Pastoralism, agriculture, and trade. This population sells livestock, livestock products, vegetables, and fruits, through retail and wholesale business operations in the county. Other sources of employment are government departments, Non-Governmental Organizations, donor agencies and business organizations.

A small percentage is self-employed, and they engage in milk vending, jua kali, hawking and livestock selling among others economic activities. With the loss of jobs in the Small and Medium Enterprises the livelihood of people working in these sectors were directly or indirectly affected, particularly youths as the sector employs most of the young population. The loss of jobs in the *matatu* and *boda boda* industry had directly impacted on the lives of the youth as some residents avoided public means of transport in fear of contracting the virus. In addition, the lockdowns in Mombasa and Nairobi counties had a negative impact on long distance drivers in these sectors. The impacts of the pandemic were also felt on the service sectors as it affected workers in both private and public sector. Several people working in restaurants and bars were rendered jobless due closure as ordered by the government.

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

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

	Male	Female	Total
Population	478,685	482,941	961,649
Working	227,773	236,459	464,247
Seeking Work/ No Work Available	13,680	10,058	23,739
Persons outside the Labour Force	237,121	236,347	473,475
Not Stated	111	77	188
per cent Working	94.3	95.9	95.1

per cent Seeking Work/ No Work Available	5.7	4.1	4.9
--	-----	-----	-----

SOURCE: KNBS, 2019

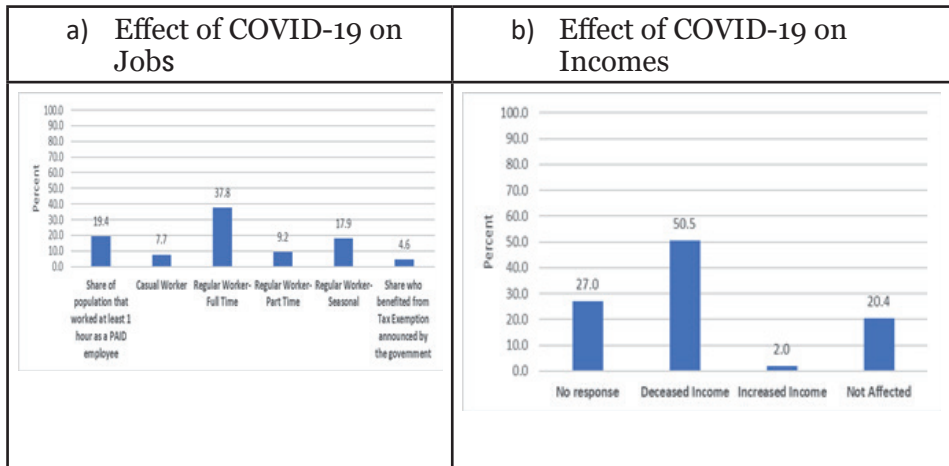
Distribution of Population Age 5 Years and above by Activity Status, and Sex in the County is shown in Table 12.1 above. An assessment on County population aged 15-64 years (labour force) was estimated at 363,713 people of whom 342,199 people were working and 21,514 were seeking work but work was not available representing an unemployment rate of 5.9 per cent (Kenya Population and Housing Census, 2019). However, the employment and income opportunities are affected by several challenges in the county. The major challenges pointed out in the county include lack of knowledge and skills, lack of capital among the youth, high taxation and insecurity. The informal sector covers small scale activities that are semi-organized, unregulated and uses low and simple technologies while employing few people per establishment.

### Effects of COVID-19

The unemployment has increased during the period of COVID-19, according to May 2020 KNBS COVID-19 Survey, 19.4 per cent of the county labour force worked at least for 1 hour for pay; 5.6 per cent had never worked, and 75.0 per cent worked in the informal sector. However, 9.7 per cent of employees did not attend to work due to COVID-19 related activities with other 80.6 per cent of employees working without any pay. On average, workers in the County lost 10.9 hours per week due to COVID-19.

During the pandemic, about 7.7 per cent of workers in the county were casual workers 37.8 per cent were regular workers (full time), 9.2 per cent employees were working as part time. However, about 50.5 per cent reported decrease in income while 2.0 per cent of people reported to have experienced increased income. These could be the people working in the health sector who are supplying medical equipment such as masks and PPEs. About 4.6 per cent of workers indicated to have benefited from government tax exemptions which indicates 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.

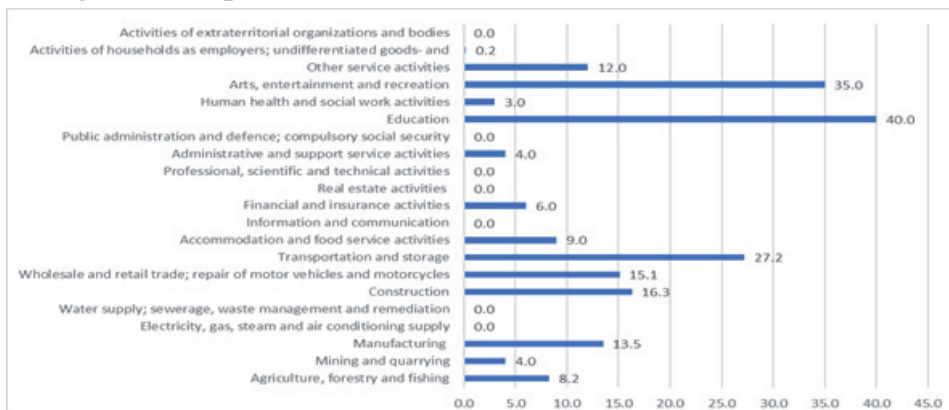
**Figure 12.1: Effects of COVID-19, 2020**



Source: May 2020 KNBS COVID-19 Survey

The COVID-19 pandemic had implications on the Narok County economic activities, businesses and workers. According to the May 2020 KNBS COVID-19 Survey, the workers in education sector lost an average of 40.0 hours in a week, followed by workers in arts, entertainment and recreation who lost an average of 35.0 hours in a week. Workers in transportation and storage sector lost an average of 27.2 hours in a week while workers in accommodation and food services, wholesale and retail trade, and human health and social work activities lost an average of 9.0 hours, 15.1 hours and 3.0 working hours in a week, respectively. Workers in construction and manufacturing sectors lost an average of 16.3 hours and 13.5 working hours in a week, respectively. Workers in the agriculture sector lost an average of 8.2 hours per week. Due to high demand of sanitation services amidst the pandemic, the workers in water sector reported no hours of work lost in a week.

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



Source: May 2020 COVID-19 Survey

Further, 51.0 per cent of workers in Narok county recorded decreased income while 2.0 per cent recorded an increase in income. The county recorded 66.1 per cent of workers in informal sector and 9.7 per cent never attended to work due to COVID-19 related issues. In private sector schools, teachers and other workers lost their incomes. Some other businesses such as bars, hotels, market centres had totally closed, leading to reduced business activities. Some workers in the transport sector had also been rendered jobless due to restrictions of moving in and out of Nairobi and Mombasa counties, and within the county. On average, the workers in the county lost 10.9 hours per week

## **12.2 Opportunities with COVID-19 in Labour participation**

To minimize on loss of revenue, the County Government has been provided with an opportunity to embark on automating its revenue collection processes. The county will seek to complete and attain 100 per cent automation especially on payment and monitoring systems for levies collected on rates on property, entertainment taxes, and charges for its services.

The county has been provided with an opportunity of exploring ICT to support the county move on despite the current situation. The county has been holding virtual meetings at different levels of government. In addressing the pandemic, technology has been very significant in contact tracing. The county, network coverage is very poor and low hence the need for more funds to be allocated in the budget for ICT to try and deal with the issue.

The COVID-19 pandemic has hastened the arrival of ICT as the economic effect of the global pandemic (COVID-19) provides an opportunity for the acceleration of the digitalization processes in the work environment. The county government need to immediately use digital platforms to enable remote access to jobs for their employees where the Human Resource Management will have an essential role to play in navigation of the situation caused by the pandemic.

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 reskill its employees and develop strategies (mid- and post-pandemic strategies) to adapt to the emerging issues.

## **12.3 Emerging issues**

The COVID-19 pandemic has expedited the speed at which different firms and businesses within the county are changing their pay programmes through pay reductions and incentive resets. The county governor and his deputy experienced a 30 per cent pay cut. 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 segment its workforces to include essential and frontline workers especially in health sector. As it continues, the county will consider long-term strategies to determine which changes will be temporary versus those that will be permanent.

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

#### **12.4 Recommendations**

- (i) Create more employment opportunities through increasing investment in education and training and skills development, and investments within the key sectors of agriculture, infrastructure, technology and innovation.
- (ii) Improve access to finance for small and medium enterprises through lending institutions for sustained business. In addition, build capacity in areas related to marketing, operations, finance, and human resource development to enhance the chances of survival of SMEs.
- (iii) Collaborate with National government and establish more Institutes that train pastoralists and agro-pastoralists on different courses, ranging from livestock husbandry, agri-business skills and diseases identification. Trainings will also be used as avenues for development of workers to pass on new information and to correct miss-conceptions concerning animal management.
- (iv) Enhance universal access to health to collectively finance health services for all, including uninsured workers and their families, and invest in community and primary health including community health workers, water, sanitation, immunization and public health.
- (v) Enhance livelihood diversification by increasing income-generating activities for both crop and livestock production.
- (vi) The county to collaborate with Kilgoris, Kapweria and Ilimotiok and Masai Mara Vocational training centres to offer trainings on emerging technologies and skills and match with the market demand, while increasing chances for the youth to secure productive economic engagement.
- (vii) Build workplace resilience to public health emergencies and outbreaks of infectious diseases in all sub counties.
- (viii) Establish a livestock development program in the county which will help to resource farmers and improve their livelihoods and nutrition. Under the program, farmers will receive training in animal management.

## 13. Conclusion and Key Recommendations

### 13.1 Conclusion

#### Fiscal Policy

Narok total County revenue significantly grew by 189 per cent from Ksh 5.70 billion in 2013/14 to Ksh 16.47 billion in 2018/19, an average annual growth rate of 27 per cent. Actual expenditure in the county increased from Ksh. 4,232.7 million to Ksh. 10,631.3 million in 2019/20 before slowing to Ksh 8,872.8 million in FY 2020/21, an average annual growth rate of 15.66 per cent. Economic and political crises, natural disasters (such as droughts and flooding), security challenges and health crisis (such as the COVID-19 pandemic) highlight the consequential risks and underlying vulnerabilities in national and county level budgetary and planning system. These can substantially affect public resources and in cases of weaker planning systems they may impact the nature and level of service delivery to the citizen. County expenditure has over the years been rising as the county escalates its efforts in provision of services to its residents. Total county expenditure has grown significantly since 2013/14. With the implementation of the first full year county budget in 2013/14, actual expenditure in the county increased from Ksh 4,232.7 million to Ksh 10,631.3 million in 2019/20 before slowing to Ksh 8,872.8 million in 2020/21.

#### Agriculture, Livestock and Fisheries

The Agri-food analysis highlights the sector was negatively affected by COVID-19 in terms of labour supply, trade and marketing operations, food supply and the resulting effects on food prices. At the peak of the COVID-19 pandemic period, the County also suffered from desert locusts, floods, and livestock diseases. The County's agricultural productivity is also affected by: variable and extreme weather events; invasive species on crop and pasturelands; water scarcity; dependence of rain fed agriculture; unsustainable natural resources management practices ; low adaptive capacity of farmers to climate change ; poor and inadequate infrastructure affecting marketing activities; 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 as well as water from springs, with low access to piped water. Sanitation coverage remain low in the county with majority of households having no toilet facility thus relieving themselves in the bush, similarly there is low access to piped sewer. This presents an opportunity for the county to increase sanitation coverage to increase its additional revenue collection from sanitation services. Similarly, increased access to piped water by rural and peri-urban households can also be potential for revenue.

## **Manufacturing, Trade and MSMEs**

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

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

The main means of transport used in the County is bicycle (*boda boda*) 32.1 per cent. The paved County Road network covers 22.57km, while the paved National roads cover 220.36km. Out of the total paved road network of 242.93km, 83.36 per cent is in good condition, 4.2 per cent in fair condition and 2.6 per cent in poor condition. The status of ICT access and use in the county is low, especially among households. The lack of knowledge and skills on internet, the high cost of equipment and services and the perception that the household does not need internet are the leading reasons that the people of in the County do not have internet connection. The housing tenure is predominantly owner occupied at 76.9 per cent, with 23.1 per cent of the households under rental tenure. Majority of the households (76.3%) did not receive a waiver or relief on payment of rent from the landlord, with 14.5 per cent reporting a partial waiver, despite inability to pay due to the pandemic.

## **Tourism**

Several constraints affect growth of tourism sector in the county include lack of an efficiency monitoring and evaluation system in the county government department; there is no requisite capacity to track progress, both at outcome level and programme and project implementation; human-wildlife conflicts as a result of increased competition for pasture and loss of biodiversity within the Maasai Mara National Reserve and the surroundings; coupled with deforestation, and rampant land subdivision and fencing of wildlife corridors, thus restricting the free movement of wildlife; declining number of wildlife due climate change; declining levels of Mara River becoming a threat to sustainability the reserve; reduction foliage due adverse weather conditions; and human activity affecting wildlife migratory corridors.

## **Health**

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

## **Education and training**

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

## **Social protection**

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

## **Labour Participation**

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

### **13.2 Key recommendations**

#### **Fiscal Policy**

To ensure continued recovery, Narok County to improve budget execution and absorption of development budget by harmonizing project implementation cycles to budgeting and fast-track exchequer releases, Reduction of expenditure on compensation of employees within the PFM requirement since ballooning compensation of employees potentially

affects execution of key development programs especially if not brought to sustainable levels and Monitoring and prompt payment of pending bills as they limit execution of planned activities in subsequent budgets.

In addition to this, the County to mobilize more finances from OSR to increase the available revenues for budgetary operations and seek for more funding in form of grants from development partners to cater for the critical development projects in the county.

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

To successfully build resilience and enhance growth of the agriculture sector, the County to: explore partnerships to develop agro-processing and value addition capacities at the County; expansion of water harvesting projects and sustainable irrigation; invest in storage and cooling facilities; link farmers to diverse product markets; strengthen the County's institutional capacity in disaster surveillance and management; adoption of modern farming technologies and practices; adopt sustainable land management practices; enhance access to agricultural finance; enhance farmers access to critical agricultural inputs and services and build their technical capacity to act on information obtained; provision of storage and cooling facilities; and strengthen agricultural cooperatives to enhance marketing.

### **Water sanitation and hygiene**

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

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

In sustaining growth in the Manufacturing, Trade and MSMEs sector, the County to: consider an emergency rescue package for businesses and traders hard-hit by the effects of COVID-19 in the short run. The emergency Fund, supported by development partners and other stakeholders, will be used to identify and support the most vulnerable businesses and entrepreneurs affected by COVID-19. Related, the County to inject some stimulus to cushion the businesses and traders through affordable credit; waiver of some County taxes, cess, and other charges; COVID-19 has increased demand for locally produced goods in the County, and especially Personal Protective Equipment (PPEs), sanitisers, hospital beds and ventilators. It is an opportunity to spur innovation and promote manufacturing and industry development and generation of jobs for the youth; Establishments in the county to adopt to the new pandemic guidelines including rearranging floor plans to allow for social distancing; Establish timber processing industries in the county; Introduce the production and planting of fruit and agroforestry trees under the Operation Make Narok Green Again (OMENGA); Provide incentives to industries keen on investing in value addition - milk processing, potato plant, and maize milling; Create linkages between industries and Vocational training colleges in the County.

---

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

In addressing the prevailing challenges, the county to focus on increasing the share of unpaved roads in good and fair condition to above 62 per cent which is the national average. Adopt programmes to ensure ubiquitous access to reliable and affordable internet (internet everywhere) by applying aerial and satellite-based communication technologies due to the vast nature of the county. 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.

## **Tourism**

To ensure the revenue from the game reserve continues to flow the county needs to continue investing in infrastructure improvement in the park, programmes and strategies towards reducing encroachment in the park and game reserve areas, demarcation policies, incentives programmes to the communities who give up land for wildlife and programmes on reforestation and environmental conservation.

## **Health**

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

## **Education and training**

The County with support from stakeholders will need to continue investing in early childhood development through infrastructural development; deployment of ECDE teachers and provision of sanitation facilities. The county would put up measures that encourage learners to complete all levels of education.

## **Social Protection**

COVID-19 pandemic created immediate and long-term economic consequences for vulnerable groups including children, PWDs, elderly and their families. In an effort to strengthen social protection response in face of a similar pandemic, the county government needs to provide basic income security, especially for persons whose jobs or livelihoods have been disrupted by the pandemic. Build linkages with other Ministries, and with NGOs that work with people with disabilities to strengthen families, deliver assistive devices, reduce barriers to access and provide vocational training.

## **Labour Participation**

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

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