

Socio-Economic Status of Mandera County with COVID-19

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**Kenya Institute for Public Policy
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Abbreviations and Acronyms

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

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Executive Summary

Fiscal policy, planning and budgeting

The county total revenue has significantly grown over the years as the Government focus on enhanced services and amenities for its residents. Analysis of the sources of revenue indicate that equitable share has been the main source of county funding accounting for more than 70 per cent of the total revenues. Monthly cash transfers from the National Government have always had an increasing trend from January to June over the years. 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) and Sweden. Analysis of the quarterly OSR show that collections in the third quarter have been the highest during the period under review save for FY 2015/16. In FY 2014/15 the county reported Ksh. 1,570.4 million in pending bills. This declined steadily to Ksh. 107.6 million in FY 2017/18 with development spending related pending bills accounting for 52.7 per cent of this. To ensure continued recovery, the county must now move quickly to 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.

Agriculture, Livestock and Fisheries

Livestock production is the predominant economic activity in Mandera County. Key agricultural value chains commodities in the County include cattle, goats, sheep, camels, donkeys, poultry production and bee keeping (apiculture), maize, beans, sorghum, watermelons, tomatoes, onions and bananas, mangoes, watermelons, pawpaw, and oranges. 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 Poor and inadequate infrastructure; water scarcity; low agro-processing and value addition opportunities; dependence on rainfed agriculture; low access to quality and affordable inputs; low commercialization levels and marketing opportunities; low access to major off-farm services including extension, climate and market information, and credit services; pests and livestock diseases; and farm losses and post-harvest waste. To successfully build resilience and enhance growth of the agriculture sector, the County will: explore partnerships to develop agro-processing and value addition capacities at the County; expansion of water harvesting projects and sustainable irrigation; scale up conservation agriculture, post-harvest management, plant and keep drought-tolerant

crops and livestock breeds; link farmers to diverse product markets; strengthen the County's institutional capacity in disaster surveillance and management; enhance farmers access to critical agricultural inputs and services and build their technical capacity to act on information obtained; provision of storage and cooling facilities; natural resource management; 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 has a perennial water shortage problem, despite this, the county is dedicated in providing water to households, though also facing challenges in revenue collections since COVID-19 has resulted into reduced incomes among households and businesses, thus deferring collection of revenue from the water services it provides as well as financial support to water services providers. This in the long run could affect the development of the water and sanitation sector. Additionally, COVID-19 poses health challenges to water and sanitation officers if they get infected, they have to be self-isolated, and this may lead to disruption of services. Other constraints to the sector include, drought, water leakages and destruction of water catchment areas. To ensure continuous availability of water, the national and county government should 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

Manufacturing, Trade and MSMEs is an important sector in Mandera County. However, this sector's momentum was disrupted by the COVID-19 pandemic as the containment measures associated with COVID-19 pandemic took a heavy toll on the sector. The measures that were taken, such as closure of markets, observance of health protocols in form of social distancing and handwashing served to increase the cost of production and affected access to markets for the produce.

In sustaining growth in the Manufacturing, Trade and MSMEs sector, the County will: Establish an emergency rescue package for businesses and traders hard-hit by the effects of COVID-19 in the short term. 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; 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.

Infrastructure, housing and urban development

The main means of transport used in the County is PSV matatus followed by motorbike. The paved County Road network covers 19.67 KMs, while the paved National roads cover 67.32KMs. Out of the total paved road network of 86.99KMs, 53.18 per cent is in good condition, 6.44 per cent in fair condition and 12.15 per cent in poor condition. The status of ICT access and use in the county is low, especially among households. The high cost of internet services and equipment and the lack of knowledge and skills on internet are the leading reasons that the people of in the County do not have internet connection. The housing tenure is predominantly owner occupied at 92.4 per cent, with 7.6 per cent of the households under rental tenure. In terms of housing quality (building material), 18.67 per cent of houses are constructed using finished materials for walls, floor and roofing compared to 81.33 per cent constructed using rudimentary materials. In addressing the prevailing challenges, the county will Identify county significant infrastructure projects for implementation under a stimulus programme to support economic recovery from the effects of the pandemic; 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 25.3 per cent to 100 per cent in line with the global agenda for Universal Access to Mobile Telephony; and availing appropriate building technology for use by the public in house construction and improvement in every subcounty, that responds to local cultural and environmental circumstances.

Tourism

Mandera County is a hilly landscape whose key tourist attraction are wildlife and Malkamari Game Reserve. The county does not have classified hotels. There are medium-class hotels in major towns and smaller hotels and restaurants distributed across Mandera Town. The County Government plans to construct a model 4-star hotel. Accommodation and food services account for 0.3 per cent of total GCP. Some opportunities in the sector include improving sanitation aspects in tourism attraction sites, refurbishment of accommodation facilities, promoting domestic tourism. To improve the sector the county government will map all the sites with tourism potential in the county; coming up with a tourism sector development master plan; protecting cultural heritage sites; Tourism product diversification and marketing; niche products such as annual cultural festivals, and animal sanctuaries / wildlife reserves, set up a cultural documentation centre and tourism information centre and ensure high sanitation standard in the hotel facilities to deter spread of COVID-19 in line with the national guidelines for reopening of the hospitality sector.

Health

In 2019/2020, the number of health facilities in the county were 194 which comprised of 181 primary health facilities and 13 hospitals. This was an improvement from a total of 111 health facilities in the previous year, 2018. The number of beds per 10,000 population is 20 against the WHO recommendation of 30 beds per 10, 000 population. In general, 1.3 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 91.3 per cent

of the population. The county had 9.8 per cent of the children aged 12-23 months were fully immunized against measles at 9 months while 0.6 per cent were fully immunized against measles at 18 months. There is an enhanced collaboration within Frontier FCDC counties, which has resulted into training of the health officers and all the frontline staffs. In line with the health status in the county, some of the recommendations that need attention include the following: The county should 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. To make this more effective, the County should engage Community Health Volunteers (CHVs) and equip them with the relevant resources and skills.

Education and training

The Gross Attendance Rate (GAR) for pre-primary school was 33.4 per cent while that of primary school and secondary school was 78.8 and 56.7 per cent respectively in 2015/16. The preprimary gross enrolment rate in the county was 33.4 per cent in 2018 and while the net enrolment rate was 10.5 per cent. On the impact of COVID-19, education sector in Mandera was also affected with children back at home. The closing down of schools worsened the existing problems in the education sector as the Cases of Female Genital Mutilation had increased tremendously, including child marriages, defilement and domestic violence. In collaboration, the county government together with the Anti-FGM Board had beefed community vigilance. The high usage of drugs has been as a result of peer pressure and 'stress' while lack of school fees has been caused by poverty. 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 depository 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 92 per cent which is more than double the national average of 36.1 per cent. The county's food poverty levels are at 78 per cent and 63per cent of the total population is multidimensionally poor. Further, about 32 per cent of the children population is stunted. The impact of the COVID-19 to the county's economy cannot be gainsaid. 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. 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. 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 Garissa 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.

Human resources

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. According to the May 2020 KNBS COVID-19 Survey, workers in education sector recorded the highest level of hours lost (25.0 hours) in a week followed by workers in transportation and storage who lost 21.8 hours in a week. Mandera County was negatively affected due to COVID-19 outbreak. Several business activities were affected leading to loss of jobs and income. The county was most affected as it was among the few counties that national government implemented lock down. In addition to lockdown, other counties also closed borders such as Marsabit-Mandera border. The unemployment has increased during the period of COVID-19. In addition, the reduction in operation hours and restriction on movement in and outside Nairobi negatively impacted on the transport sector with many relying on it rendered jobless. 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. The Garissa County government will promote implementation of a stronger labour market interventions and policy reforms that drive employment creation. The County shall 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 will 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 the County Economy

1.1 Introduction

Mandera County is one of the counties in Frontier Counties Development Council (FCDC) bloc. The county occupies a land area of 25,991.5 Km². The county had an estimated population 867,457 people of which 50.1 per cent were male and 49.8 per cent female (KNBS, 2019) as indicated in table 1. Of the population 6,237 or (0.9 per cent) are persons with disabilities. The youth constituted 32.0 per cent of the population of whom 49.0 per cent were female. The County has a population density of 33 per km². About 68.8 per cent of the population live in rural areas of whom 49.8 per cent are female. The elderly population (over 65-year-old) make up 1.5 per cent of the total population of whom 42.1 per cent were female. The population in school going age group (4-22 years) was 59.7 per cent in 2019.

In 2015/2016, the overall poverty rate in Mandera County was 78.0 per cent against the national poverty rate of 36.1 per cent. In addition, 62.9 per cent of the population were living in food poverty and 91.8 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, 31.8 per cent of the children were stunted as compared to the average national level at 26.0 per cent.

Table 1.1: Development indicators in Mandera County

Estimated County Population (KNBS, 2019)	County	National
Males	867,457	1.6% of the total population
Females		50.1%
Intersex		49.8%
		0.004%
	434,976	
	432,444	
	37	
Estimated Population Density (km ²)	33	82
Persons with disability	0.9%	2.2%
Population living in rural areas (%)	68.8%	68.8%
Children (0-14 years) (%)	54.5%	41.1%
School going age (4-22 years) (%)	59.7%	68.7%
Labour force (15-64 years) (%)	42.2%	55.0%
Number of COVID-19 cases (as of 11 th September 2020) (MOH); National cases were 35,232 people	36	0.1 of the national cases

Poverty (2015/2016) (%)	78.0%	36.1%
Food Poverty (2015/2016) (%)	62.9%	31.9%
Multidimensional Poverty (2015/2016) (%)	91.8%	56.1%
Stunted children (KDHS 2014)	31.8%	26.0%
Gross County Product (Ksh million)	35,101	0.5% share to total GDP (2017)
Average growth of Nominal GCP/GDP (2013-2017) (%)	10.6%	15.3%

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 280,744 individuals. They are followed by persons aged between 6-13 years who are the primary school children comprising of 257,008 of the county population. The under 0-3 age comprise of 117,969 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	54,313	63,656	117,969
Preprimary school age (Under 4-5)	34,174	38,660	72,834
Primary School Age (6 -13)	127,592	129,416	257,008
Secondary school age (14-17)	55,582	44,383	99,965
Youth Population (15-34)	143,294	137,450	280,744
Female Reproductive age (15-49)		171,566	171,566
Labour force (15-64)	195,926	183,153	183,153
Aged Population 65+	7,308	5,307	12,615

Data Source: KNBS (2019)

1.2 Level of Socio-economic Deprivations

In 2015/2016, 1.3 per cent of the population had health insurance cover, 16.2 percent lived in premises with water, 90 per cent lived in their own homes and 26.2 per cent had access to mobile telephone (Table 1.3) and only (49.9%) had access to toilet facility.

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

Indicator	Details	Percentage Distribution (per cent)
Health care	Population with Health Insurance Cover	1.3
Drinking water (Time taken to fetch)	Zero (In premises)	16.2
	less than 30 minutes	57.9
	30 minutes or longer	25
Sanitation and Hygiene	Proportion of households with toilet facility	49.9
	Shared Toilet	60
	Not Shared	40
	Place to wash hands outside toilet facility	14.3
	No place to wash hands outside toilet facility	85.7
Education (Population 3 years and Above by School Attendance Status)	Ever Attended	47.8
	Never Attended	51.9
Knowledge of health and nutrition (children aged 0-59 months that participated in Community Nutrition Programmes)	Participated in Community Nutrition Programmes	11.8
	Did not Participated in Community Nutrition Programmes	87
Housing and standard of living (house ownership)	Owner Occupier	90
	Pays Rent/ Lease	7.3
Access to information (Population Aged 3 years and above by ICT Equipment and Services Used)	Television	10.2
	Radio	20.8
	Mobile phone	26.2
	Computer	1
	Internet	5.4

Source: KIH B 2015/16

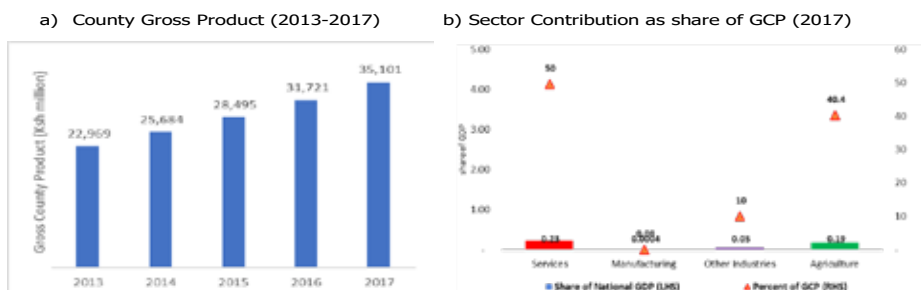
1.3 Structure of Mandera County Economy

Mandera County Gross County Product (GCP) accounted for 0.5 per cent of total Gross Domestic Product (GDP) as of 2017 as reported in figure 1. The GCP increased from Ksh 22,969 million in 2013 to Ksh 35,101 million in 2017 representing an average growth rate of 10.6 per cent per year. The service sector contributed 50.0 per cent of GCP while agriculture and other industries sector shared constituted 40.4 per cent and 10.0 per cent, respectively.

The services sector includes such activities as wholesale and retail trade. Agriculture is mainly

dominated by Crop farming (Sorghum), beekeeping and livestock production while industries and manufacturing include production of consumer goods and food processing.

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



Data Source: KNBS (2019)

1.4 COVID-19 caseload and implications of mobility restrictions

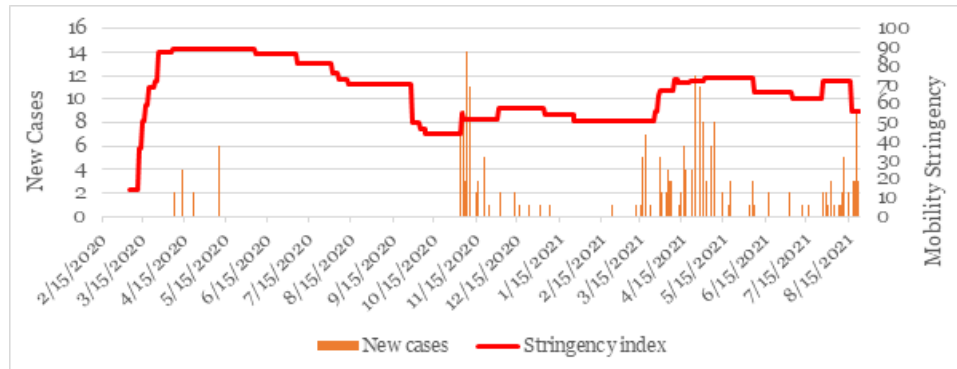
As of March 2020, Mandera County had zero cases. However, by August 2020, the County had reported 14 COVID-19 cases with mobility stringency of 70.4. The caseload would rise to 232 by August 2021 with mobility stringency of 56.0. The mobility stringency index is a composite measure rescaled to a value from 0 to 100 (100=strictest) based on nine response mobility indicators. The nine metrics used to calculate the mobility stringency index include school closures, workplace closures, cancellation of public events, restrictions on public gatherings, closure of public transport, stay-at-home requirements, public information campaigns, restrictions on internal movements and international travel controls. An index measure closer to 100 means high incidence or severity of mobility restrictions. The County mobility stringency index implies the severity of the restrictions was moderate.

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

Date	Total cases	Mobility stringency (0-100)
13 th March 2020	0	36.1
23 rd August 2020	14	70.4
23 rd August 2021	232	56.0

Source: Oxford University

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

Figure 1.2: New COVID-19 cases

Source: Oxford University Data

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

2. Socio-Economic Effect of COVID-19

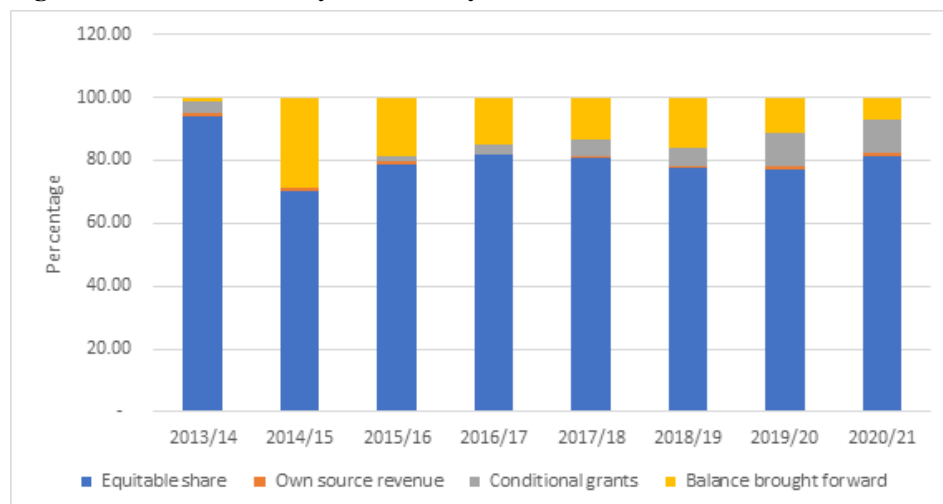
2.1 Fiscal policy, planning and budgeting

Availability of financial resources is very critical in achieving the counties development plans and settling county expenditures. Timely and adequate funding aid counties in implementing 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 grown over the years as the Government focus on enhanced services and amenities for its residents. Mandera County total revenue grew by 123.47 per cent from Ksh 6.98 billion in 2013/14 to Ksh 15.59 billion in 2018/19, the highest ever. However, the total revenues declined in FY 2019/20 and 2020/21 to Ksh 12.16 billion and Ksh 12.72 billion respectively, following a decline in the various sources of County revenue. The amount realized in 2020/21 was 96.3 per cent of the annual budget allocation of Ksh 13.21 billion. The performance was an improvement from the 92.5 per cent target attained in FY 2019/20. This was supported by the 100 per cent remittances of equitable shares from the National government and increase OSR.

Analysis of the sources of revenue indicate that equitable share has been the main source of county funding accounting for more than 70 per cent of the total revenues (figure 2.1). On average, it contributed 80.12 per cent of the total revenues between 2013/14 and 2020/21. The share of equitable share from the National Government to the total revenue have been declining over the years from a high of 93.86 percent during 2013/14 to a low of 76.86 percent in 2019/20. This underscores the importance of conditional grants to the County as it has been increasing over time. Equitable share grew by 56 per cent from Ksh 6.55 billion in 2013/14 to Ksh 10.22 billion in 2020/21. The amount received in FY 2020/21 accounted for 100 per cent of the annual budget allocation. This implied that the County received all expected amount from the National Government to finance its operations. This accentuates 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 always had an increasing trend from January to June over the years as shown in table 2.1. A similar trend was observed in 2020 with the transfers growing by 163.68 percent from Ksh 3.72 billion received in January to Ksh 9.81 billion received in June. In comparison to 2019, the total amount transferred to Mandera County in March, April, May, and June of 2020 decreased by 15.26 per cent from Ksh. 32.3 billion to Ksh. 30.6 billion. Transfer of more funds in the subsequent months was key to enable the County Government to undertake its budgetary operations as well as implement the necessary measures to curb the spread of COVID-19.

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

	Jan	Feb	Mar	Apr	May	Jun	Oct	Nov	Dec
2021	5,359.06	6,243.72	-	-	-	-	2,797.60	-	-
2020	3,721.84	4,641.91	5,715.32	7,533.71	7,533.71	9,813.68	2,565.96	3,549.78	4,417.80
2019	4,444.59	5,289.59	6,269.43	7,205.81	8,017.19	10,816.51	8,017.19	2,688.49	371,078.37
2018	2,315.94	3,280.50	5,033.61	5,033.61	5,858.39	9,928.13	1,256.35	2,240.33	3,430.37
2017	-	-	5,653.04	6,522.74	8,124.50	9,670.63	-	-	-
2016	-	-	5,246.40	6,768.87	7,530.10	7,530.10	-	-	-

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) and Sweden. During 2020/21, the County received Ksh 431.07 million and Ksh 918.74 million from National Government and Development partners respectively. The share of conditional grants to the total revenue has maintained an increasing trend over the years from a low of 0.11 percent in 2014/15 to 10.71 percent in 2020/21.

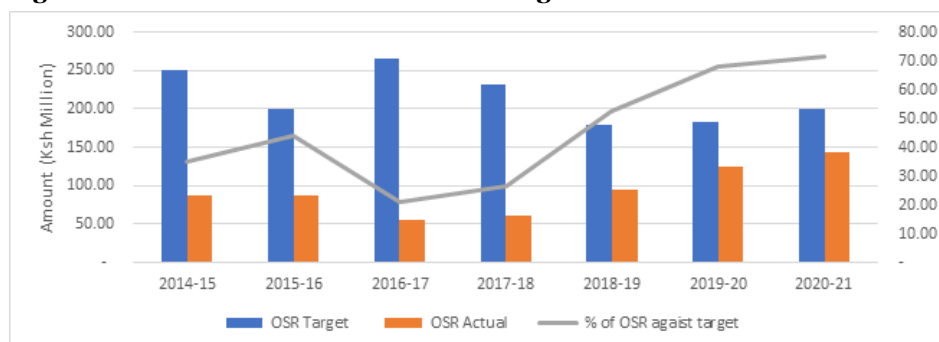
Similarly, the amount has increased significantly from Ksh 230.31 million in 2013/14 to Ksh 1.35 billion in 2020/21. To sustain the increasing trend of conditional grants, the county ought to continue with fostering positive relations with development partners and adhering to the terms and conditions of the grants availed.

Own Source Revenue

The share of OSR has been relatively low over the years. On average, it contributed to total revenue averaged 0.83 per cent to the total revenue between 2013/14 and 2020/21. During 2020/21, OSR contributed 1.14 per cent to the total revenue, the highest on record. To increase the contribution of OSR, it would be important for the county to develop and implement measures that enhance mobilization of OSR and seal revenue leakages.

Analysis of annual County OSR performance shows a stable trend over the years. The County attained highest OSR collection amounting to Ksh. 143.31 million in 2020/21, an increase from a low of Ksh 55.84 million realized in 2016/17 (figure 2.2). The performance of actual OSR versus target indicate that the county achieved more than 20 per cent of its targets over the period under review, with improved performance from 2017/18 to 2020/21. During 2019/20, the county generated Ksh. 124.96 million from OSR, representing a 30.9 percent increase compared to Ksh. 95.49 million realized in 2018/19. Similarly, the amount realized in 2020/21 represented an increase of 15 per cent compared to the amount collected in 2019/20. The significant increase was attributed to automation of revenue collection system in the entire County as well as land digitization in Mandera East. The improved performance show that the County remained resilient during the COVID-19 pandemic period even as the Country experienced low economic activities.

Figure 2.2: Annual Own Source Revenue targets and actual collections

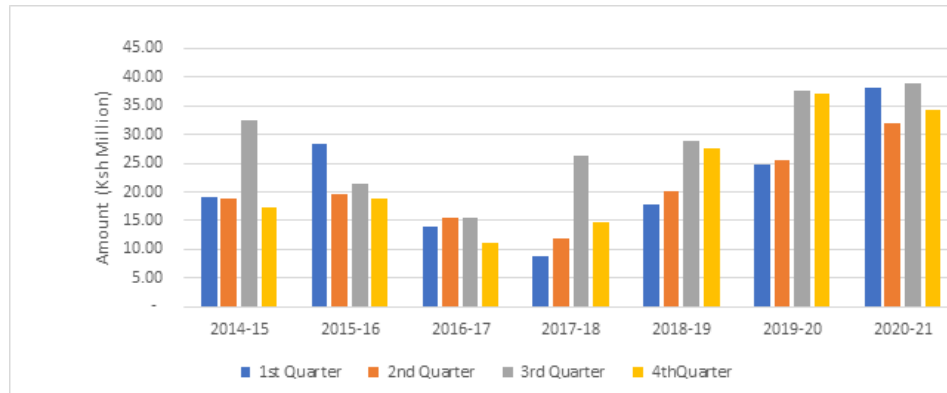


Data Source: Office of the Controller of Budget (Various reports)

Analysis of the quarterly OSR show that collections in the third quarter have been the highest during the period under review save for 2015/16 (figure 2.3). This could be attributed to the collections of single business permits that are due on 31st March of every year. During 2019/20, quarterly OSR collections maintained an increasing trend from Ksh. 24.81 million in the first quarter to Ksh 37.58 million in the third quarter. As expected, there was a slight decline in OSR collections during the fourth quarter of 2019/20 to Ksh. 37.11 million, arising from the containment measures that were undertaken to manage the spread of Corona virus that led to disruption of economic activities. In 2020/21, quarterly OSR collections remained robust, premised on improved economic activities in the County and across the Country. The

performance show that the County remained resilient during the COVID-19 pandemic period even as the Country experienced low economic activities.

Figure 2.3: Quarterly Own Source Revenue collection



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

County expenditure analysis

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

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

Despite their constrained fiscal autonomy (e.g. 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 2014/15 increasing from Ksh. 9,019.8 million to Ksh 11,644.4 million in 2020/21 (Figure 2.4). Cumulatively the county has spent a total of Ksh 77.0 billion between 2013/14 and 2020/21. This comprises of a cumulative Ksh. 40.8 billion and Ksh 36.2 billion on recurrent and

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

development expenditures representing 53.0 per cent and 47.0 per cent of the cumulative recurrent and development expenditure respectively. This signals that development expenditure has performed relatively well and there is even a greater opportunity to push development expenditure higher and support deepening of capital spending in the county.

Figure 2.4: County expenditure analysis

Figure 2.4(a): Trends in actual aggregate expenditure

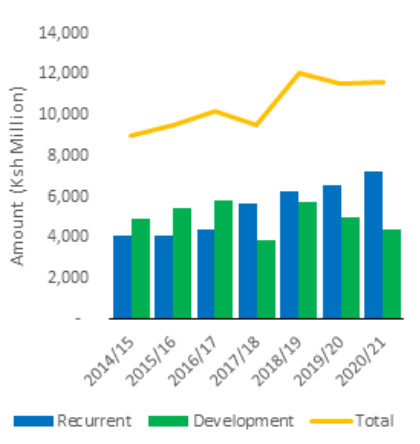
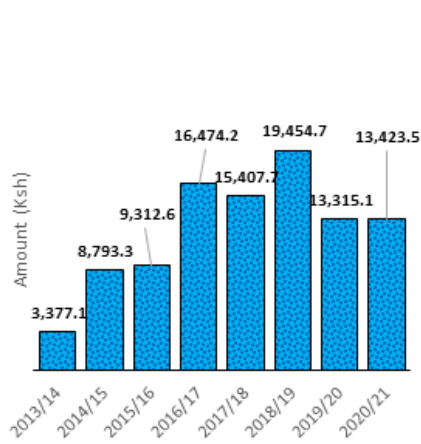


Figure 2.4 (b): Trends in actual per capita expenditure



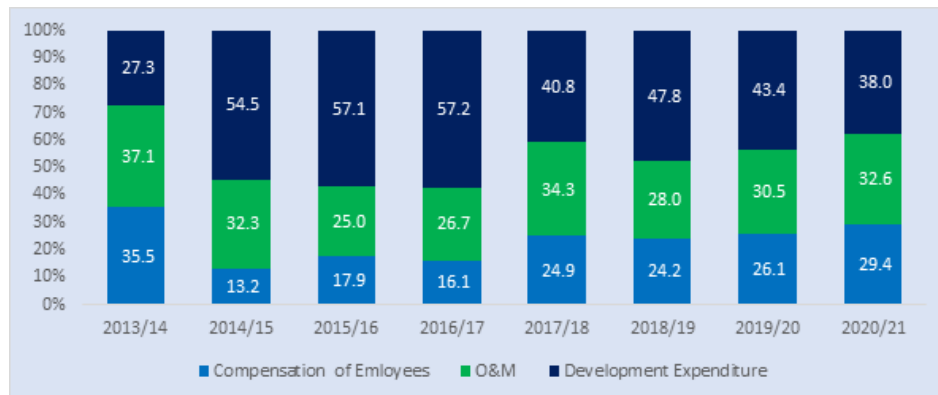
Data Source: Office of the Controller of Budget

Consistent with the nominal growth in actual county expenditures, spending on a per capita basis has shown upward growth over 2013/14 to 2018/19. In 2013/14, per capita spending in the county was about Ksh. 3,377.1 compared to Ksh. 19,454.7 in 2018/19. Per capita county spending declined to Ksh 13,315.1 in 2019/20 before increasing slightly to Ksh 13,423.5 in 2020/21. The average per capita spending between 2013/14 and 2020/21 stood at Ksh. 12,444.8.

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 (per cent of total county government expenditure)



Data Source: Office of the Controller of Budget

County development expenditure accounted for an average of 45.8 per cent of total county spending between 2013/14 and 2020/21 as represented in Figure 2.5. In 2013/14 the share of development expenditure performed poorly and accounted for just 27.3 per cent of the county expenditure. However, between 2014/15 and 2020/21 spending on development has remained above 40 per cent save for 2020/21 when development expenditure accounted for 38.0 per cent of total county expenditure. On the other hand, compensation of employees has been below 30.0 per cent in the period 2013/14 to 2020/21, save for 2013/14 when compensation of employees accounted for 35.5 of total county expenditure.

Reflecting on expenditures by functional classification (priority spending), the county spent a combined average of 70.4 per cent of the total expenditure during the period 2014/15 to FY 2020/21 on non-administrative services such as health services (18.4%); water, environment and natural resources (16.7%); public works roads and transport (16.6%); education, culture and sports (6.6%); agriculture livestock and fisheries (6.1%); lands, housing developments and physical planning (2.7%); trade, investments, industrialization, and cooperative Development (2.2%); and Gender, Youth and Social Services (1.0%).

On the other hand, during the review period co-ordination and administrative functions accounted for a combined 29.6 per cent with Public Service Management and Devolved Units leading at 10.7 per cent followed by Finance & Economic Planning and ICT at 8.2 per cent, County Assembly 6.2 per cent, Office of the Governor and Deputy Governor 4.0 per cent, while County Public Service Board accounting for 0.5 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 share of spending (per cent)
Health Services	934.8	1,439.3	1,789.4	2,114.4	2,279.0	2,466.3	2,525.8	1,935.6	18.4
Water, Environment and Natural Resources	1,574.5	1,224.4	2,239.7	1,387.1	1,983.4	1,414.7	2,469.9	1,756.2	16.7
Public Works Roads and Transport	2,823.5	1,861.6	1,822.2	1,613.9	1,926.0	1,086.4	1,068.9	1,743.2	16.6
Public Service Management and Devolved Units	1,179.5	703.1	683.8	1,081.6	1,650.3	1,222.2	1,336.9	1,122.5	10.7
Finance & Economic Planning and ICT	183.0	1,607.8	981.75	741.8	671.3	1,242.0	615.8	863.3	8.2
Education, Culture and Sports	547.4	781.2	599.6	616.4	915.7	839.4	583.8	697.6	6.6
County Assembly	352.5	687.7	644.7	616.1	733.5	733.0	803.6	653.0	6.2
Agriculture Livestock and Fisheries	655.5	382.9	465.2	433.4	567.3	1,185.1	794.6	640.6	6.1
Office of the Governor and Deputy Governor	260.9	456.7	295.1	389.8	610.4	467.4	454.2	419.2	4.0
Lands, Housing Developments and Physical Planning	259.6	128.0	166.9	228.5	108.6	461.3	634.3	283.9	2.7
Trade, Investments, Industrialisation, & Cooperative Development	198.4	190.0	322.1	208.0	310.9	245.3	127.6	228.9	2.2
Gender, Youth and Social Services	-	39.6	122.8	59.0	220.4	130.8	188.1	108.7	1.0
County Public Service Board	50.3	50.2	63.7	46.8	65.0	56.3	69.0	57.3	0.5
Total	9,019.8	9,552.5	10,197.0	9,536.8	12,041.8	11,550.3	11,672.3	10,510.1	100.0

Data Source: Office of the Controller of Budget

Effectiveness of County spending

Total budget execution averaged 79.9 per cent in the period 2013/14 to 2020/21. In 2013/14 overall total budget execution stood at 49.6 per cent. This execution improved to 84.8 per cent in 2016/17 before taking a dip in 2017/18 due to election related shocks to funding from National government. At the end of 2020/21 budget absorption stood at 88.1 per cent meaning that in 2020/21 only Ksh. 11,644.4 million was utilized out of the approved budget of Ksh. 13,211.4 million (**Figure 2.6**).

With regards to development budget execution in the county, the average absorption rate between 2013/14 to 2020/21 was 70.4 per cent (implying that on average over 29.6 per cent of the development budget is not absorbed). This exemplifies a strong development 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 has been 91.2 per cent leaving about 9.1 per cent of unspent recurrent budget.

Figure 2.6: county approved expenditure and absorption rates

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

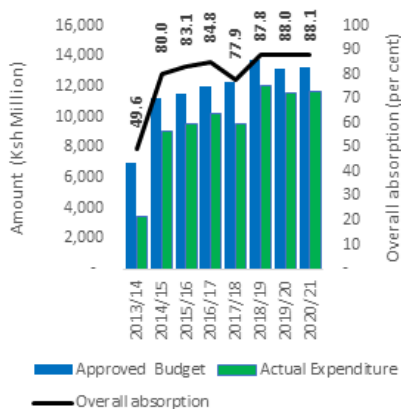
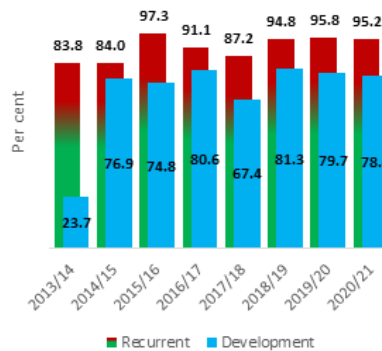


Figure 2.6(b): Absorption rates for recurrent and development expenditures (per cent)

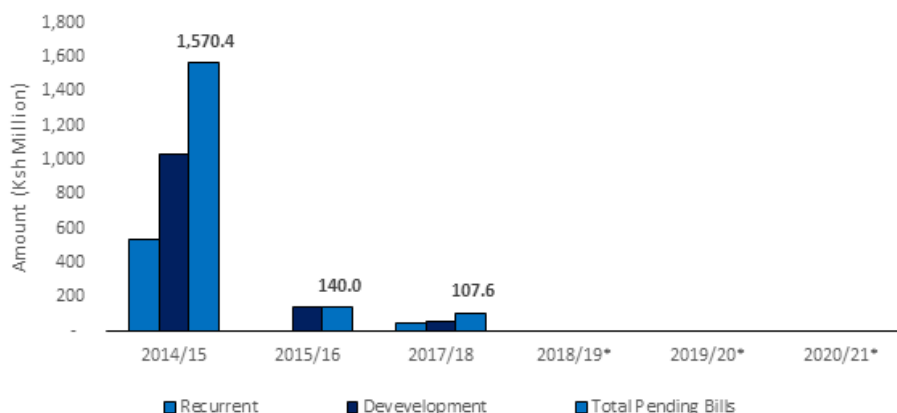


Data Source: Office of the Controller of Budget

Pending Bills

In 2014/15 the county reported Ksh. 1,570.4 million in pending bills. This declined steadily to Ksh. 107.6 million in 2017/18 with development spending related pending bills accounting for 52.7 per cent of this. In 2019/20 to 2020/21 the county did not provide figures for pending bills accumulated by the county. Generally, pending bills related to development have been greater than those related to recurrent expenditure on average accounting for 58.4 per cent of the pending bills portfolio. If pending bills for development were paid in their respective fiscal year, the execution of development budget in subsequent years would improve.

Figure 2.7: profile of county pending bills



Data Source: Office of the Controller of Budget

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.

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 a significant share of economic activity in Mandera County. A substantial More than a half of County economic activity is driven by the agriculture sector. In 2017, agriculture accounted for Ksh 14,169 million out of the total Ksh 35,101 million Gross County Product (GCP) amounting to 40.4 percent of the County’s GCP.

Over 40 per cent of the households in Mandera County practice farming. About 12.2 per cent of the households produce crops, 48.2 per cent produce livestock, 1.3 per cent practice aquaculture and about 0.9 per cent are involved in fishing. About 4.3 per cent of the households practice irrigation farming.

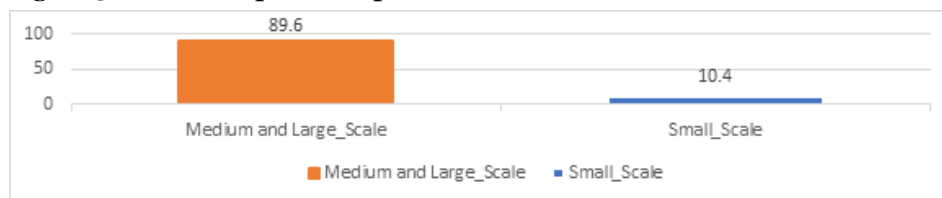
Table 3.1: Distribution of households practicing agriculture, fishing and irrigation by county and sub-county

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
Mandera	125,763	62,639	15,310	60,556	1,646	1,083	5,428
Mandera West	14,274	8,737	2,432	8,507	220	149	545
Banisa	24,285	14,983	5,661	14,496	399	248	1,310
Kotulo	9,446	6,881	267	6,826	92	87	55
Lafey	11,597	7,352	418	7,240	146	99	82
Mandera Central	21,140	8,042	395	7,954	337	197	131
Mandera East	25,904	7,078	2,730	6,540	194	119	1,692
Mandera North	19,117	9,566	3,407	8,993	258	184	1,613

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 10.4 per cent almost half of the farming households in Mandera County are “small-scale” farming with a land holding of 0.675 or less acres of land.

Figure 3.1: Scale of operation: per cent of households



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

An overall analysis of the County agricultural production indicates among the top food crops produced by households in Mandera include maize, beans, sorghum, watermelons, tomatoes, onions and bananas.

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

County/Sub County	Mandera	Mandera West	Banisa	Kotulo	Lafey	Mandera Central	Mandera East	Mandera North
Maize	13,594	2,082	5,040	179	304	310	2,466	3,213
Beans	7,331	846	2,653	92	117	187	1,623	1,813
Sorghum	5,735	1,257	2,480	114	189	211	572	912
Watermelons	3,601	302	1,103	35	54	186	1,101	820
Tomatoes	3,566	211	1,082	67	63	137	1,145	861
Onions	2,312	202	671	52	41	112	681	553
Bananas	2,250	87	788	42	39	104	706	484
Millet	1,804	506	740	24	31	100	200	203
Kales	1,484	268	562	25	34	102	272	221
Cabbages	1,257	132	641	39	23	105	176	141
Potatoes	1,129	109	561	43	31	111	156	118
Sugarcane	753	50	285	19	18	101	172	108

Source: 2019 Kenya Population and Housing Census

Key permanent crops among households in Mandera include Mangoes.

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

County/Sub County	Mango
Mandera	2,685
Kenya	796,867

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 Mandera's value of fruits production in 2019 amounted to Ksh 149.7 million. The area under fruit was 479 Ha

with a production of 5,205 MT. The major fruits grown in order of value importance are; watermelons, banana, pawpaw, oranges and mango.

Table 3.4: Fruits Grown in Mandera

Type of Fruit	Area in Ha	Production in Tons	Value in Shillings
Watermelons	200	2,600	104,000,000
Banana	74	1,110	14,430,000
Pawpaw	60	515	11,080,000
Oranges	15	188	7,520,000
Mango	50	500	7,500,000
Lemons	30	135	1,875,000
Guavas	35	140	1,748,000
Ground Nuts	15	17	1,530,000
Total	479	5,205	149,683,000

Source: Agriculture and Food Authority (2019)

In 2019, the value of vegetables production in the County amounted to Ksh 31.6 million. The area under vegetables was 157 Ha with a production of 629 MT. The major vegetables grown in order of value importance are tomato, kales and spinach.

Table 3.5: Vegetables grown in Mandera

Type of Vegetables	Area in Ha	Production in Tons	Value in Shillings
Tomato	70	345	25,000,000
Kales	60	122	2,307,000
Spinach	10	100	2,165,000
Bell Pepper/Sweet Paper	10	32	1,050,000
Pumpkin Fruit	2	20	1,000,000
Cowpea	5	10	100,000
Total	157	629	31,622,000

Source: Agriculture and Food Authority (2019)

In 2019, the value of MAPs production in the County amounted to Ksh 42.4 million. The area under MAPs was 165 Ha with a production of 875 MT. The major MAPs grown are Bulb Onion, long cayenne chilies and Corriander.

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

Medicinal and Aromatic Plants (MAPs)	Area in Ha	Production in Tons	Value in Shillings
Bulb Onion	150	820	38,900,000
Long Cayenne Chilies	10	48	3,120,000
Corriander	5	7	400,000
Total	165	875	42,420,000

Source: Agriculture and Food Authority, 2019

Being an ASAL County, animal production is a key economic activity in Mandera County. Other than rearing the traditional livestock (i.e. cattle, goats, sheep, camels 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	Kenya	Mandera	Mandera West	Banisa	Kotulo	Lafey	Mandera Central	Mandera East	Mandera North
Goats	1,898,887	56,390	8,073	13,315	6,499	6,961	7,349	5,849	8,344
Sheep	1,299,893	50,451	7,471	11,996	6,111	6,273	6,882	4,672	7,046
Camels	167,666	43,691	7,448	12,889	5,408	5,106	4,950	2,685	5,205
Donkeys	500,682	40,877	5,477	9,314	5,013	5,436	5,165	3,889	6,583
Indigenous cattle	2,260,439	28,596	5,632	6,867	4,534	2,918	3,881	2,432	2,332
Indigenous Chicken	3,337,700	13,003	3,073	3,256	1,632	1,099	1,582	1,301	1,060
Beehives	201,406	6,008	677	4,713	19	20	90	129	360
Exotic Chicken Layers	194,517	2,155	137	745	48	268	370	328	259
Exotic cattle -Dairy	939,916	1,203	117	321	56	86	195	216	212
Exotic Chicken Broilers	79,461	1,010	91	281	35	176	141	133	153
Exotic cattle -Beef	167,625	427	28	98	11	32	86	86	86
Rabbits	124,122	173	45	26	40	14	22	16	10

Source: 2019 Kenya Population and Housing Census

The above characterization of farming households highlights the priority value chain opportunities in cattle, goats, sheep, camels, donkeys, poultry production and bee keeping (apiculture), maize, beans, sorghum, watermelons, tomatoes, onions and bananas, mangoes, watermelons, pawpaw, oranges, and bulb onion. With majority of the households farming the identified products, the current Mandera transformation strategy in agriculture should prioritize value chains in the identified areas to positively impact of households' livelihoods.

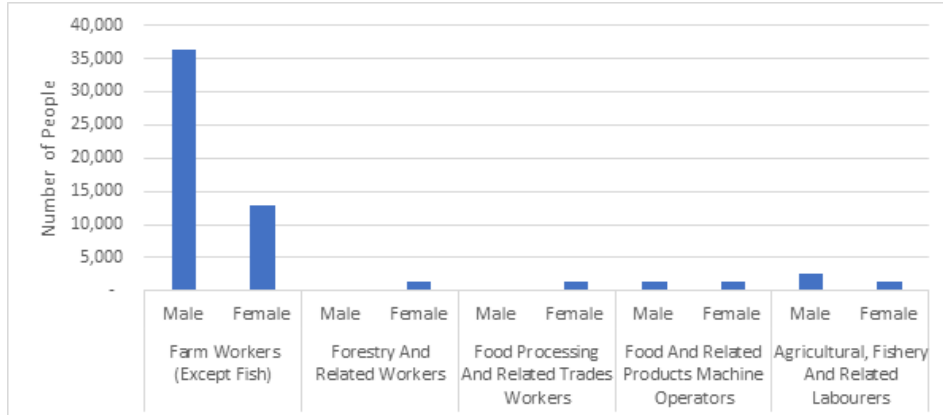
Agri-Food Challenges in COVID-19

Human capital/employment levels – by gender

Agricultural labor participation in Mandera indicates relative dominance by either gender in specific agriculture related occupations. Majority of the population in Mandera are farm workers where the group covers occupations related to: Field Crop, Vegetable and

Horticultural Farm Workers; Poultry, Dairy and Livestock Producers; and Crop and Animal Producers. The classifications are based on the Kenya National Occupational Classification Standard (KNOCS).

Figure 3.2: Agriculture-related labour force participation

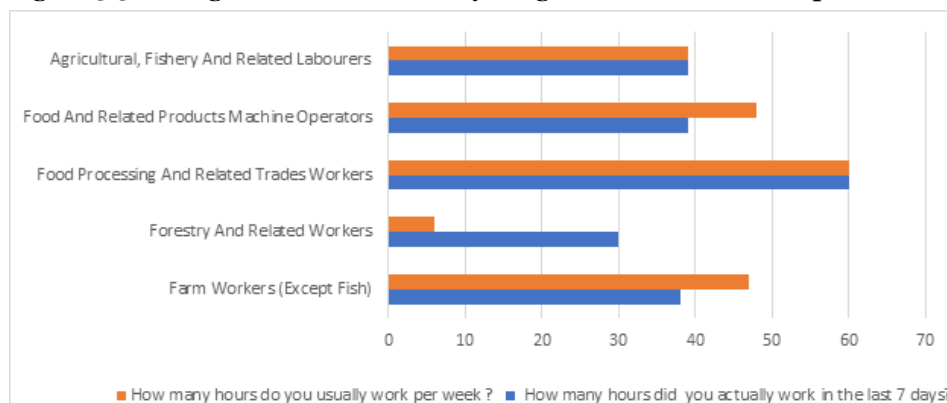


Source: KNBS Survey on Socio Economic Impact of COVID-19 on Households-Wave 2

An assessment of the COVID-19 effects on hours worked by in agriculture related occupations indicates workers in some of 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 farm workers and food and related products machine operators who recorded the highest difference of 9 hours between the usual and actual hours worked in a week. Workers in the food and related products machine operators include: Drilling and Mining Plant and Mineral Products Machine Operators; Metal Processing Plant and Metal-Working Machine Operators; Wood Processing Plant and Wood, Rubber and Plastic Products Machine Operators; Chemical Processing Plant and Chemical Products Machine Operators; Power Production Plant Operators; Food and Related Products Machine Operators; Assemblers; Drivers and Mobile Machinery Operators; and Other Plant and Machine Operators and Assemblers.

It is however noted that Forestry and Related Workers recorded to have worked 24 more hours between the usual and actual hours worked in a week. Workers in this subcategory plan and carry out the necessary operations to cultivate, conserve and exploit forests, for sale or delivery of forestry products on a regular basis to purchasers or at markets.

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

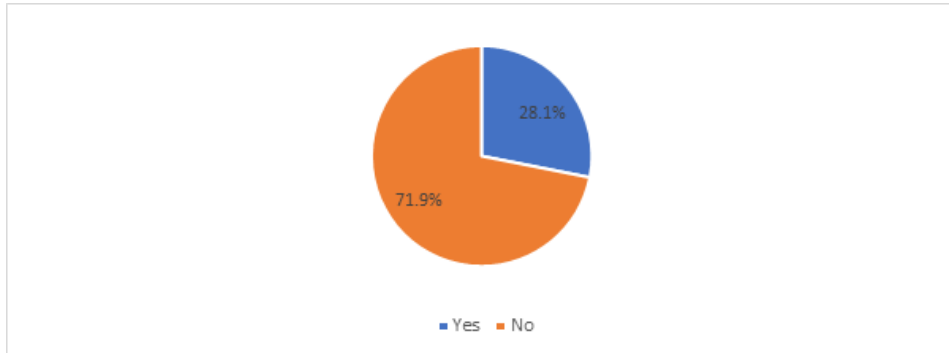
The identified COVID-19 effects on labour force participation are likely to have negative effects on output thereby increasing yield gaps. The effects are also likely to have negative effects on household’s income.

Market operations

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

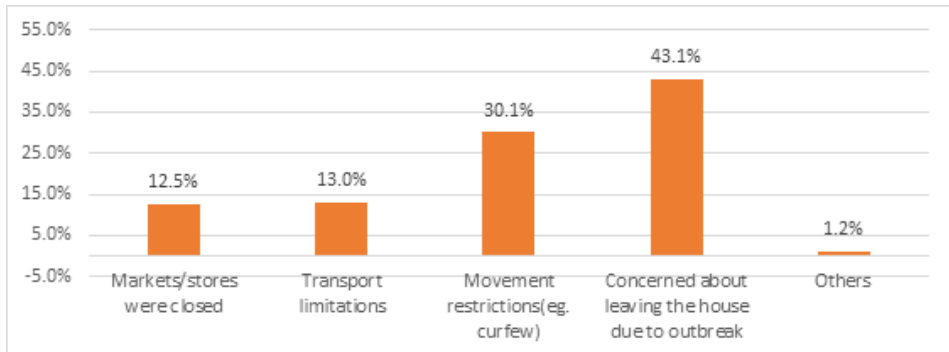
Among the marketing issues faced by the County is road access, a key indication of access to markets. Mandera’s rural access index (RAI)- which measures “the number of rural people who live within two kilometers (typically equivalent to a walk of 20-25 minutes) of an all-season road as a proportion of the total rural population- fairs poorly at 20 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, 28.1 per cent of the households in Mandera 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

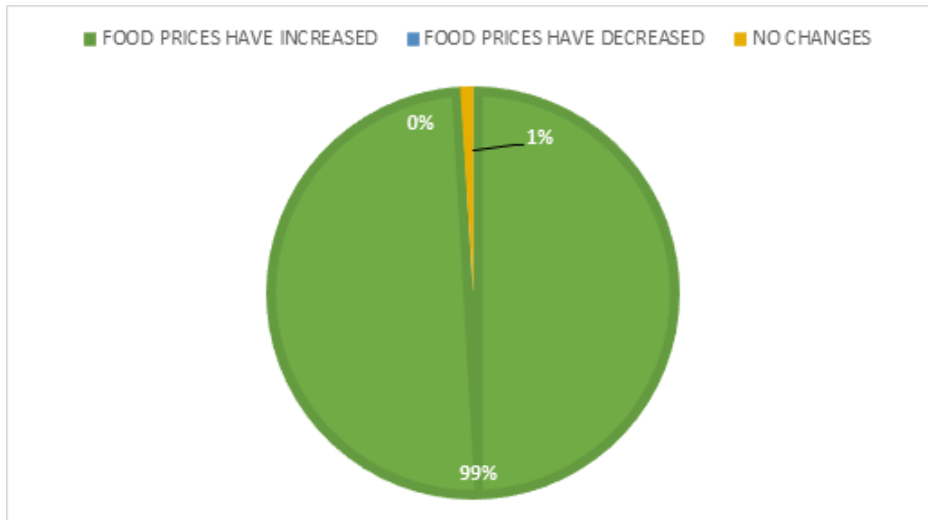
Majority of the households indicated the key reasons for not accessing the markets/grocery stores to purchase food items were concerned about leaving the house due to outbreak (43.1 per cent), movement restrictions (30.1%), transport limitations (13%) and closure of the markets/grocery stores (12.5%).

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

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

Livestock trade has especially been majorly affected as traders are unable to take the livestock to the market. Restrictions affecting seamless movement of food commodities are likely to cause a hike in prices in non-production areas and fall in prices in production areas. 99 per cent of households in Mandera County indicated that over the past 2 weeks from the reference period, while 1 per cent indicated that they had not experienced a change in the prices.

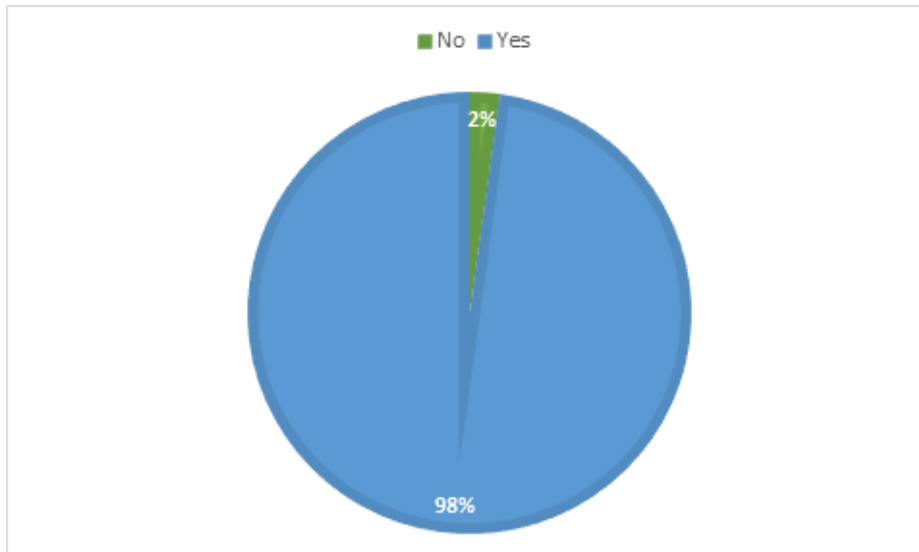
Figure 3.6: Percentage of households experiencing change in food commodity prices



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

On the magnitude of the price shocks, 98 per cent of the households indicated they faced a large rise in food prices in the past two weeks from the reference period.

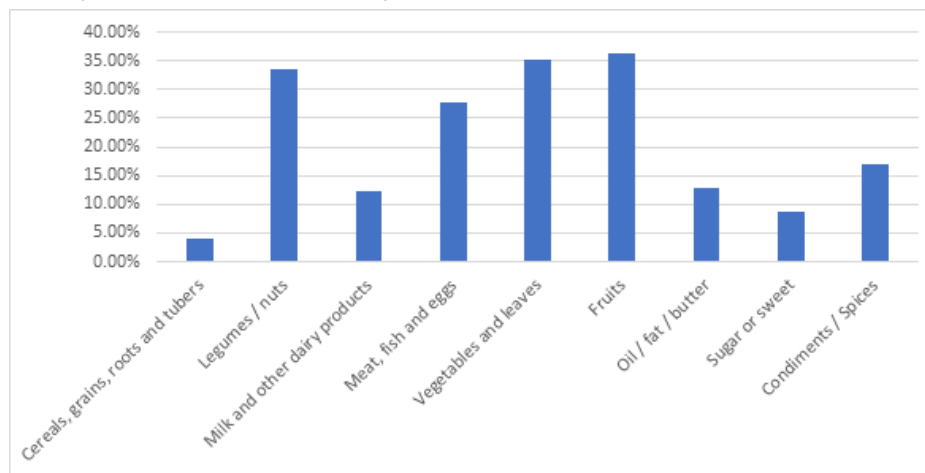
Figure 3.7: Proportion of households facing large food price shocks



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

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

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

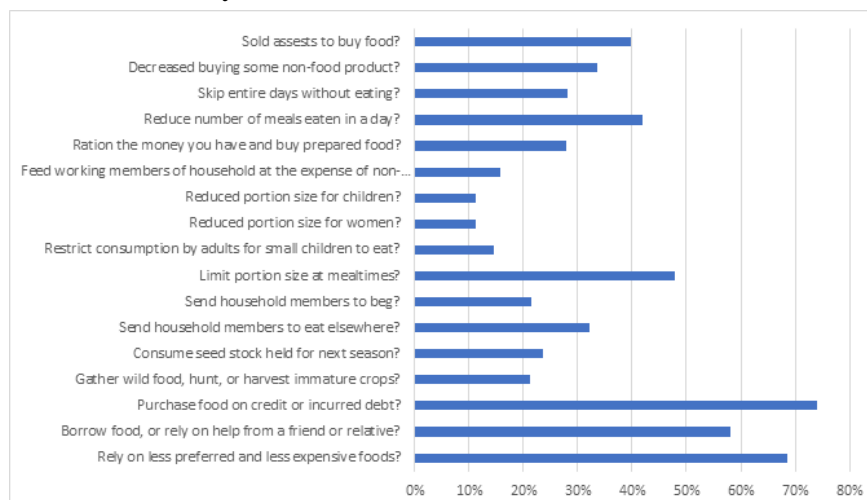


Source: KNBS Survey on Socio Economic Impact of COVID-19 on Households-Wave 2

While access to all food groups were affected as shown in the figure above, a key concern is that the food groups affected most are the nutritious food categories-vegetables, fruits and meat products -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 purchase food on credit or incurred debt (74.1%), relying on less preferred and less expensive foods (68.6%), borrow food , or rely on help from a friend or relative (58%), limit portion size at mealtimes (47.9%), reduce number of meals eaten in a day (41.9%) and sold assets to buy food (39.7%).

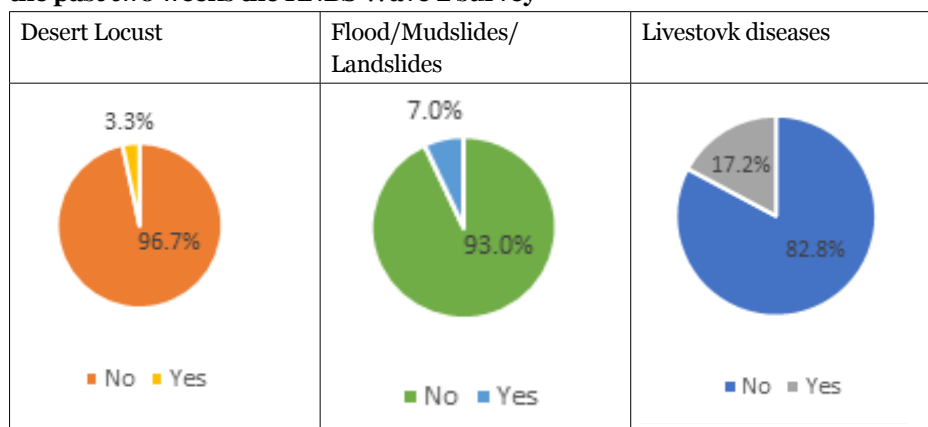
Figure 3.9: Per cent of households where the following strategies were adopted for at least one day



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

Additional significant challenges faced by the County during the COVID-19 pandemic include desert locusts (3.3%); floods/ mudslides/ landslides (7.0%); and livestock diseases (17.2%).

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



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

Agri-Food Constraints Faced in the County

Among the key constraints the County faces include:

- i. Comparatively low road networks in comparison to other counties, critical for access to input and output markets.
- ii. Need to undertake livestock farming as a business and not just for cultural purposes
- iii. Farmers low access to quality and affordable inputs including certified seeds, water, animal feeds, artificial insemination (AI) services, fertilizers, livestock vaccination and mechanized ploughing services by County tractor hire services.
- iv. Dependence of rain fed agriculture despite frequency in extreme climate conditions, such as drought episodes, delayed and erratic rains, floods, and high temperatures among other climate shocks,
- v. Low productivity due to poor natural resource management
- vi. Water scarcity which is a constraining factor that limits productivity for both livestock and food crops production
- vii. Low livestock, livestock products and food crops marketing opportunities necessary for improved incomes
- viii. Low commercialization of farming where majority of farmers practice farming for subsistence purposes and as a hobby rather than a business.
- ix. Low adoption of early-maturing plant varieties, water harvesting, and post-harvest storage that would increase farmers returns

- x. Desert locusts' infestation, floods/ mudslides/ landslides, and livestock diseases
- xi. Low livestock and crops processing and value addition opportunities among small scale farmers
- xii. Slow uptake of digital platforms to market agricultural produce.
- xiii. Need to enhance/ revive extension services in the County
- xiv. Farm losses and post-harvest waste.

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

3.2 Opportunities with COVID-19 in agriculture sector

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

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

The County has opportunities in:

- i. Developing County-private partnership in enhancing agro-processing and value addition and Linking farmers to product markets
- ii. Access to quality and affordable inputs including certified seedlings, water and hay for animals, AI services, fertilizers, livestock vaccination and ploughing services by County tractor hire services.
- iii. In addition to agro-processing, provision of storage and cooling facilities particularly at collection points to minimize spoilage and post-harvest losses particularly for milk.
- iv. Uptake of digital platforms to build capacities of farming households in modern agricultural technologies; access advisory and information services; and market agricultural produce.
- v. Expansion of water harvesting projects and sustainable irrigation in the County through partnership with development partners with the aim of increasing food productivity at the County.
- vi. Scaling up conservation agriculture, post-harvest management, planting drought-tolerant, early maturing varieties and modern crop varieties, and agro-forestry.
- vii. Increased livestock production through: - routine vaccination, deworming and vector control to maintain animal health; destocking and change of livestock species;

decentralized veterinary services; disease surveillance; storing and conserving pastures and fodder; capacity building on animal management and training on preservation and value addition techniques; controlled movement of animals ; capacity building on stock route and market inspection ; and improved milking hygiene and animal housing.

- viii. Adoption of drought resistant livestock pastures/fodder and crops and also fodder and feed conservation Rearing livestock breeds adapted to drought Livestock Production for Niche Markets Adoption of natural resource management to include soil and water conservation, tree planting, changing of crop type and water harvesting.
- ix. Enhance supportive services to include early-warning systems, financial services such as insurance schemes for livestock / crop and credit facilities, advisory and information services through extension and training.
- x. Enhancing farmers technical capacities to act on advisory information received
- xi. Improved crop and livestock emergencies surveillance systems in the County.
- xii. Strengthening farmers' associations and cooperatives as an additional solution to marketing challenges

3.3 Emerging Issues

Environmental degradation has reduced productive capacity of farms leading to increased risks to food insecurity and reduced farmers income.

Climate change, manifested in increased frequency and intensity of extreme weather conditions such as floods, droughts and pest invasion

3.4 Recommendations

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

- i. Establish partnership with the National Government, NGOs, Research Institutions and the Private sector in establishment of fully equipped milk, meat and leather processing plants and horticultural processing and value addition plants (particularly in honey, watermelons, banana, pawpaw, oranges and mango processing and value addition processes).
- ii. Establishment of abattoirs and cold storage facilities (on-site cold storage and refrigerated vehicles to transport the meat to markets in Kenya and abroad).
- iii. 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. Mandera's rural access index (RAI) fairs poorly at 20 per cent. This is low 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.

- iv. Digitize the agri-food sector to enhance: - training and building capacities of farming households in modern agricultural technologies, provision of advisory and information services, marketing agricultural produce at a wider scope beyond the County level, and improving access to innovative support services including credit and insurance services.
- v. Promote uptake of agricultural insurance, particularly livestock insurance among households. 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.
- vi. Diversify sources of growth through development of the fisheries and aquaculture sub-sector. Towards this, there is need for development of systems for riverine fisheries, ponds, dams and aquaculture to increase fish and aquatic plants production.
- vii. Invest in sustainable irrigation and water harvesting technologies. Being an ASAL County, sustainable and efficient irrigation and water harvesting have a great potential in improving access to water for improved production. This in turn is likely to increase farmers' incomes and subsequently safeguard their livelihoods from increased frequency and intensity of extreme weather conditions such as floods and droughts. Towards this, the County is undertaking an irrigation project of about Kshs. 453 million of which some funds are coming from the World Bank and County government. The County is tapping water to be used in irrigation and this will go hand in hand in securing food security. Another 2.4 billion water project funded by African Development Bank is being undertaken in the County. In addition, the County is undertaking Chrome irrigation scheme funded by Mandera County which is ongoing and will sustain water and food security.
- viii. Establish programmes for surveillance of disasters, such as extreme weather conditions and livestock disease, at the County level equipped with relevant technical specialists and finances to effectively prepare, respond and prevent risks. The County will mitigate disasters, such as those related to floods, through institutional capacity development, vulnerability analyses and updates, monitoring and early warning systems, and public education.
- ix. Strengthen cooperative development with effective stakeholder engagement and implementation of cooperative interventions for more sustainable models of financing and customized training of cooperative members.

4. Water, Sanitation, and Hygiene

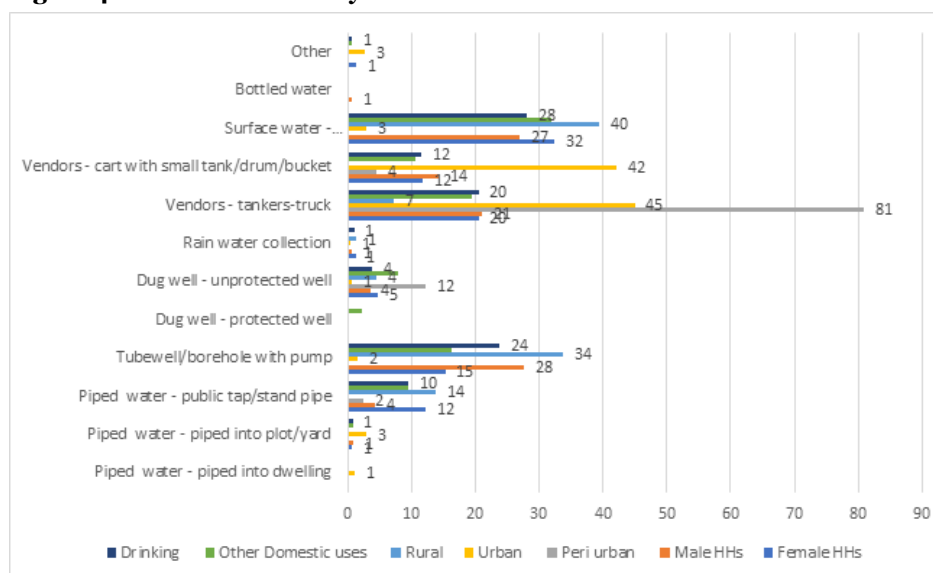
4.1 Characteristics of the Sector

Mandera is water insecure and a several efforts have been undertaken to curb the scarcity, for instance; the County has drilled about 125 boreholes across the county and the project continues to be a priority. The county has also undertaken 98 water pump supplies in the last 6 years from medium to large scale across the county.

Access to source of water by households

The major source of water for drinking utilized by households is surface water (28 per cent), tubewell/borehole with pump (24 per cent) and vendors (20 per cent). Similarly, most rural area relies on surface water (40 per cent) compared to urban (45 per cent) and peri-urban households (81 per cent) that relies on water vendors with tanker trucks.

Figure 4.1: Access to water by households



Source: KNBS 2015/2016

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

fail to observe COVID-19 prevention measures of hand washing which may in turn lead to high transmission of COVID-19.

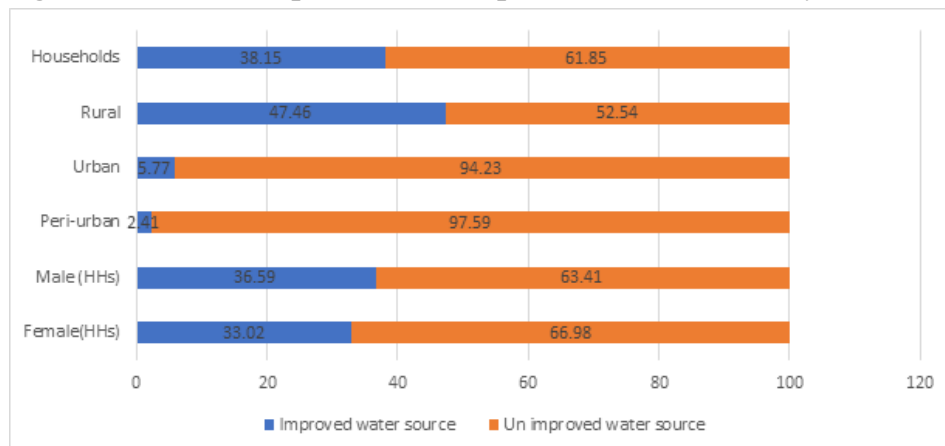
To ensure continuity of quality water supply, there is need for the county to invest in water harvesting and storage facilities both at household and institutional level, this may include supporting schools in building rain harvesting and storage structures in schools from the school structure rooftops,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

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

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

Clean and safe water is essential for good health and goes a long way in ensuring reduced infections. Access to improved drinking water², among households (38.1 per cent) remains low both in Urban (6.8 per cent) and peri urban (2.4 per cent) in comparison to rural households (47.5 per cent). Similarly, both male and female headed households have lower of access to improved drinking water source of water at 36.6 per cent and 33 per cent respectively.

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



Source: KNBS 2015/2016

Inequalities in access to safe and clean drinking water may put households at risk of contracting infectious diseases as well as make the households less observance of COVID-19 measures of hand hygiene. One mitigation measure that may be undertaken by the county

² 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/cannal/irrigation channel Bottled water. This is according to WHO and UN classification of sources of water

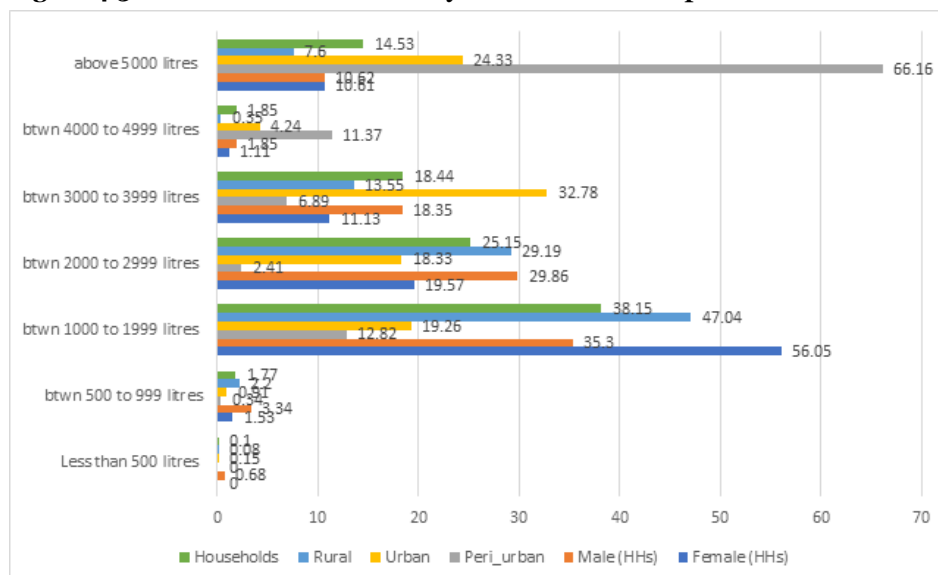
to increase access to improved water source, include connecting the households with piped water, increase the development of improved sources of water especially in rural areas. Long term measure to support access to water all households is to have both male and female headed households to be part of water management/governance team and in decision making in water management.

Other important consideration is to have separate water drinking point for livestock, different from the household water drinking water sources to minimize water contamination as well as conflict over water resource. Other long-term measures are to avoid agricultural activities along the upstream to minimize water pollution.

Volumes for water used by households in the past 1 month

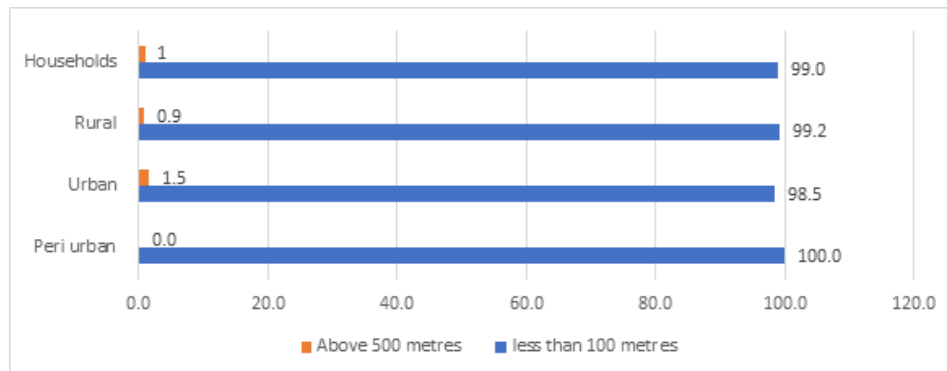
Most households (38.2 per cent), rural households (47 per cent) urban (23.4 per cent) use between 1000 to 1999 litres of water in a month. On the other hand, most urban households have used between 3000 to 3999 litres of water in a month at 32.8 per cent, while peri-urban households (66.2 per cent) uses more than 5,000 litres of water in a month. Additionally, majority of male and female headed households use between 1000-1999 litres of water in a month at 35.3 per cent and 65.1 per cent respectively.

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



Source: KNBS 2015/2016

Majority of the households both rural, urban, and peri-urban covers less than 100 metres to water sources at 99 per cent meaning they have water within their premises or close to their compounds.

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

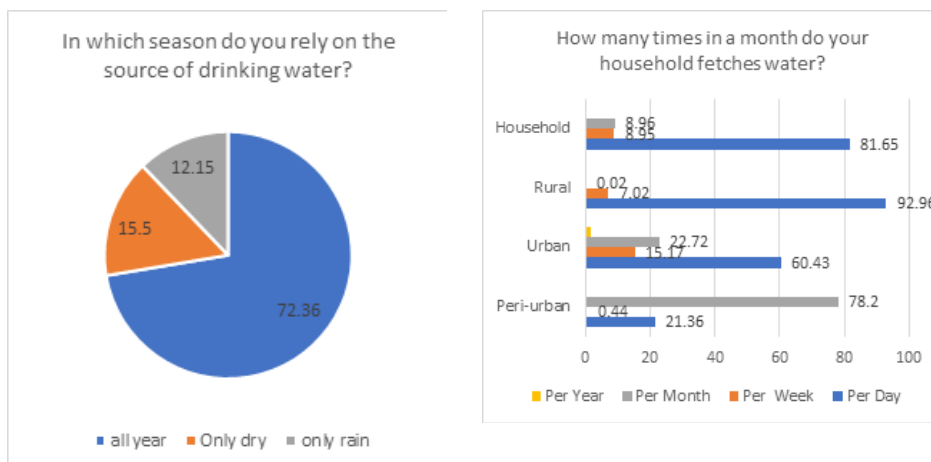
Source: KNBS 2015/2016

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

Access and reliability of water sources

Majority of households (72.3 per cent) in the county relies on the main source of drink water all year round. 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 (81.6 per cent), rural households (93. per cent) urban (60.4 per cent) must go to fetch drinking water from the sources per day. This therefore also means there may be more of interactions with other household members in areas where water sources are shared, this may lead to increase on infections of COVID-19 where COVID-19 guidelines of social distance and avoidance of crowded place may not be observed. It also implies that households may not be having water storage facilities that can minimize number of 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

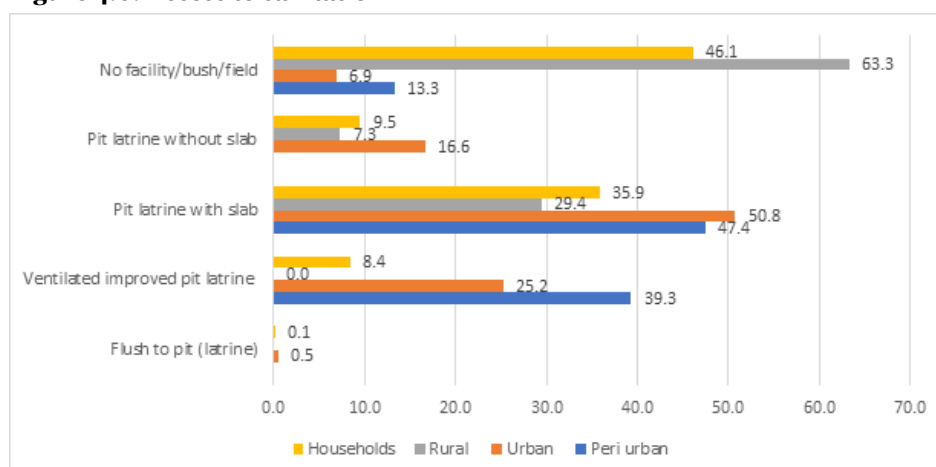
Source: KNBS 2015/2016

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 (46.1 per cent), rural (63.3 per cent) and peri-urban at 13.3 per cent have no toilet facility or relives themselves in the bush/field. Pit latrine without slab is also common among households (35.9%) rural (29.4%) urban (50.8%) and peri-urban (47.4%).

Figure 4.6: Access to sanitation

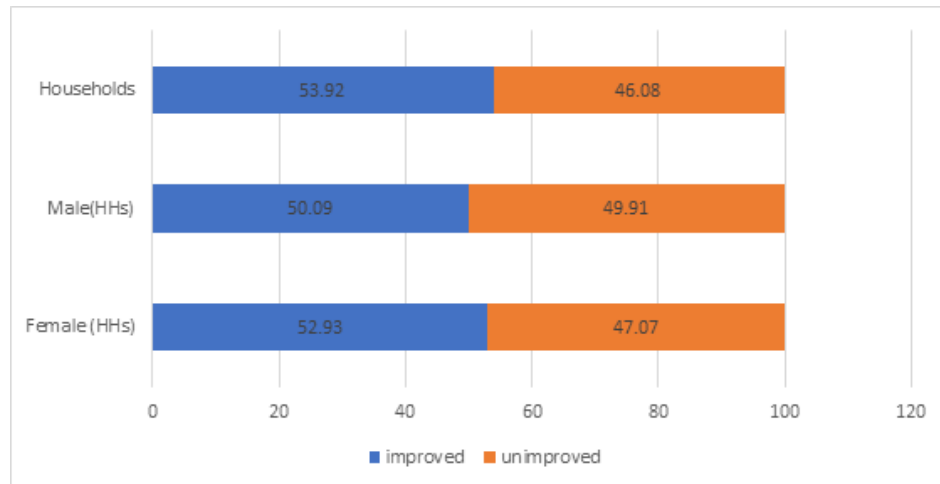


Source: KNBS 2015/2016

Access to improved and unimproved sanitation

Access to improved sanitation facilities³ is very important in maintaining hygiene and keeping infectious diseases away, good sanitation can help to detect the genetic residues of diseases in wastewater as those who are infected are thought to shed traces of the virus in faeces thus prompting for immediate action from the health officials.

Figure 4.7: Access to improved and unimproved sanitation by households



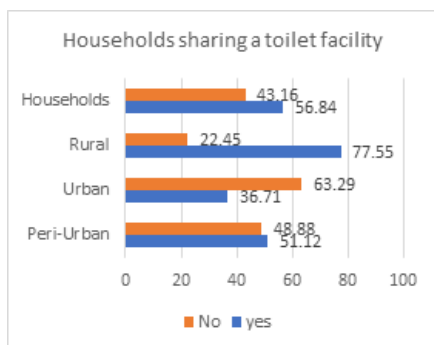
Source: KNBS 2015/2016

Sharing of a toilet facility

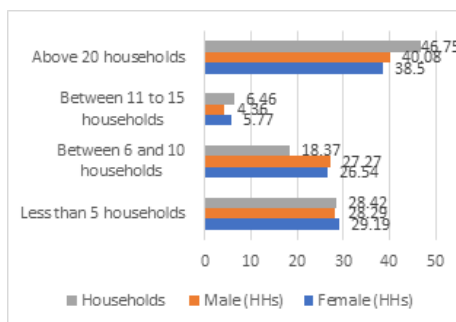
Additionally, 56.8 per cent of the households do share a toilet facility with other households, this is also similar in rural areas at 77.6 per cent compared to urban areas at 36.7 per cent. There are also large proportions of households who share a toilet facility with 20 other households at 46.8 per cent, male headed households at 40.1 per cent, and female headed households at 38.5 per cent. Only a small proportion of households do share a toilet facility with less than 5 other households at 28.2 per cent and 29.2 per cent for male headed households and 14.1 per cent for female headed households.

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

Figure 4.8: No of households sharing a toilet facility



Source: KNBS 2015/2016

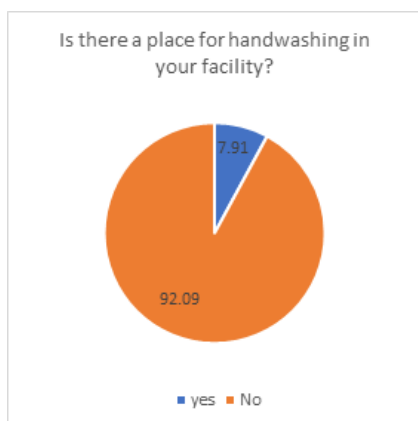


Source: KNBS 2016

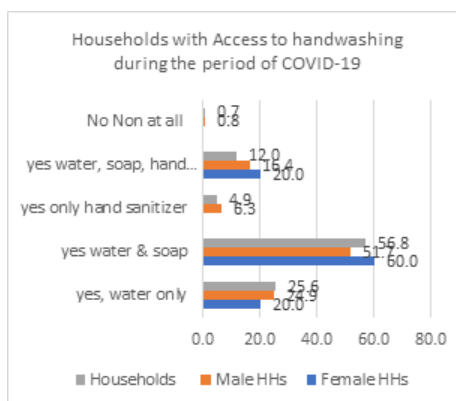
Access to WASH during the COVID-19 period

WASH has been identified very important in helping to curb transmission of infectious diseases, 92.09 per cent of the households in the county do not have a handwashing facility in their households. On the other hand, 56.84 per cent of the households have access to WASH (Water and soap) during this period of COVID-19.

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 WASH

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

4.3 Emerging Issues

The County has provided wash taps within shops in the town center as well as handwashing facilities in County and sub-County offices.

- The county has undertaken a distribution of water tanks, water and soaps at points of entry as well as developed hand washing booths in the informal settlements. The booths are made by students from the TVET institutions

4.4 Recommendations

The recovery strategy recommends the following strategies for implementation:

- (i) Fast track drilling of borehole, construction of water pans and extension of water troughs to help increase access to water for domestic and for livestock use.
- (ii) The county to support households, schools, health institutions with the construction of rainwater harvesting facilities and storage facilities to help households' access to water
- (iii) The county to undertake water trucking to households and to the livestock farmers during times of emergencies and drought
- (iv) Enhance Capacity building on management of water supplies to help reduce Non-Revenue Water and moreover increase functionality rate of already developed water facilities.
- (v) Introduce community based management systems (CBMS) for water for production and management
- (vi) Involve both men and women in water management and governance
- (vii) Establish water supply monitoring system for efficiency water supply and management.
- (viii)The county to fast track the expansion and rehabilitation of the existing piped water connection infrastructure to help increase access to water. There is low access to piped water which stands at less than 2 per cent both in urban, rural and peri urban areas. This means low revenue from piped water for the county government. Similarly, it also implies low access to clean and safe water which is guaranteed through piped water system. The county government can collaborate with the private sector, Non-Governmental organization and the local community to expand the water infrastructure to help increase access to safe and clean water.
- (ix) Expand sewer infrastructure to accommodate more households, currently there is low access to piped sewer among households which is less than 1 per cent both in rural, urban and peri urban areas. Low connectivity to piped sewer denies the county the

much-needed revenue from sanitation services as well as access to safe sanitation.

- (x) Build toilets in communities, households, schools, health care facilities, marketplaces and public places to help increase access to improved sanitation⁴ Since majority of households in rural (63.3 per cent) peri urban (13.3 per cent in) and urban (6.9 per cent) have no access to toilet facility. Similarly, sharing of a toilet facility with other households is common which stands at 77.2 per cent rural, 36.7 per cent urban and 51.1 per cent peri urban. Toilet sharing puts households at risk of contracting COVID-19, and other infectious diseases in cases where proper toilet hygiene is not maintained. Increased access to sanitation can be achieved through collaboration between county government, national government, development partners and PPP to expand sewer infrastructure and to accommodate more households.
- (xi) The county should promote awareness on proper hygiene and sanitation
- (xii) Promote the importance of handwashing and construct WASH facilities to increase access at the household level. Currently access to WASH is high among households with majority having access to water and soap at 56.8 per cent, water soap. On the other hand, 92.1 per cent of the households do not have a designated handwashing facility in their households. This may compromise hand washing hygiene of households thus making households vulnerable to contracting COVID-19. Increased access to WASH can be achieved by supporting households with access to water, soap and WASH facilities, sensitization on the importance of handwashing. Collaboration between County Government, Non-Governmental Organizations, local community and the media is important to realize increased access to WASH among households.
- (xiii) Enforce the WASH regulation of having toilets in all public facilities such as supermarkets, hotels and banks etc.
- (xiv) The county to organize sensitization forums on the importance of handwashing through the media and in community forums.

⁴ 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 Characteristic of the Sector

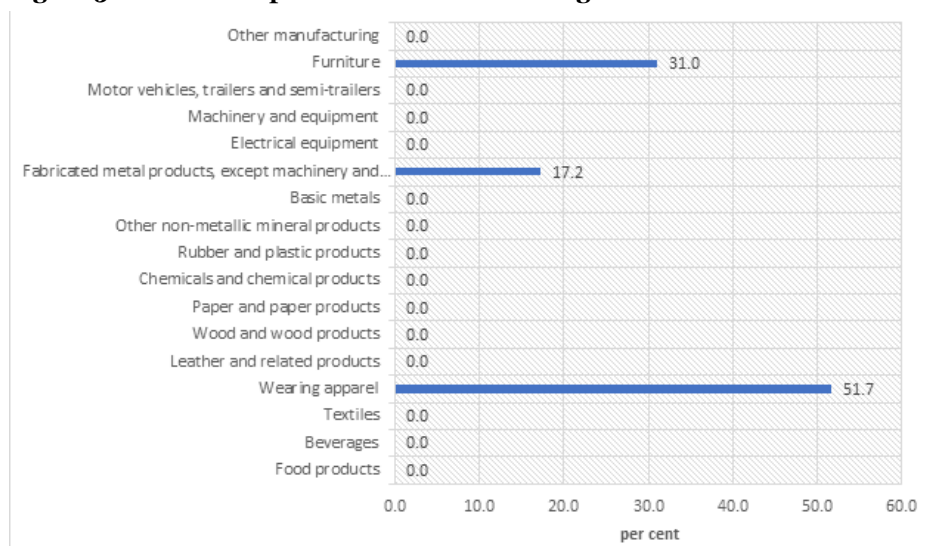
Manufacturing sector

Mandera county has 430 establishments involved in manufacturing activities which comprise of 1.7 per cent of a total of 25,594 firms (KNBS, 2016) and all are micro in size. The main drivers of the economy of the county include agriculture (40%), services (50%), and manufacturing (0.1%) (GCP, 2019).

Sector of operation

According to the KNBS 2016 survey, the key sub-sectors that drive manufacturing include: wearing apparel (51.7%), furniture (31%), and fabricated metal products, except machinery and equipment (17.2%) (figure 5.1). These are sub-sectors that are considered essential in dealing with COVID-19 and are likely to experience increased activity with focus on food production, production of Personal Protective Equipment (PPEs) and hospital beds. The key products useful in value addition and driving manufacturing include; livestock production, hides and skins, fruit and vegetable production, oil crops, and apiculture. The county is also endowed with minerals such as oil, gold, limestone, coal and precious stones.

Figure 5.1: Sector of operation in manufacturing

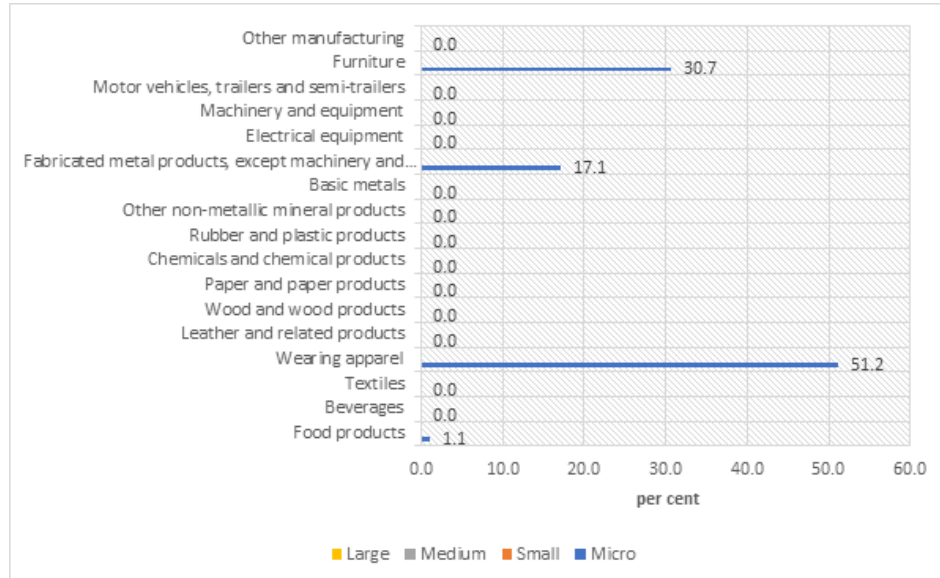


Source: KNBS, 2016

Sector of operation by size

All the establishments in Mandera County are micro in nature and operate in wearing apparel (51.2%), furniture (30.7%), and fabricated metal products, except machinery and equipment (17.1%) (figure 5.2).

Figure 5.2: Manufacturing firms by sector and size

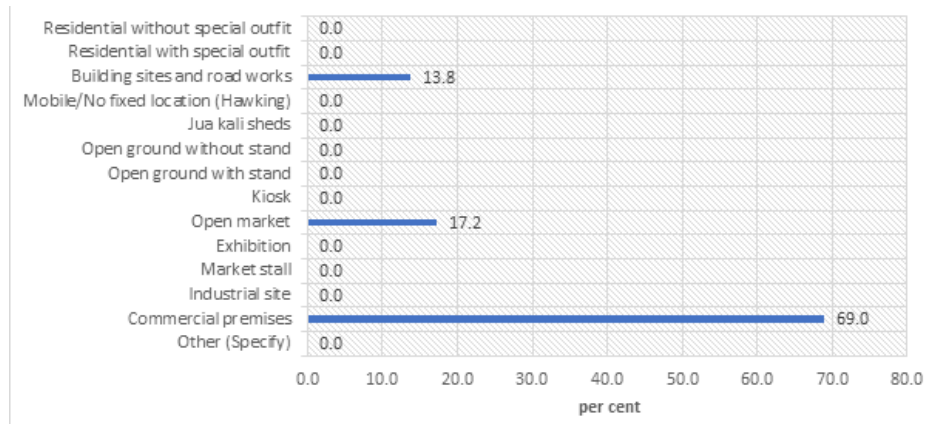


Source: KNBS (2016)

Location of manufacturing firms by type of premises

Manufacturing firms in Marsabit County are mainly located in commercial premises (69%), open market (17.2%), and building sites and road works (13.8%) (Figure 5.3).

Figure 5.3: Location of manufacturing firms by premises



Source: KNBS, 2016

Distribution of Manufacturing firms by gender and size

Manufacturing establishments in Mandera County are all in the micro category and fully owned by males (100%) (Table 5.1).

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

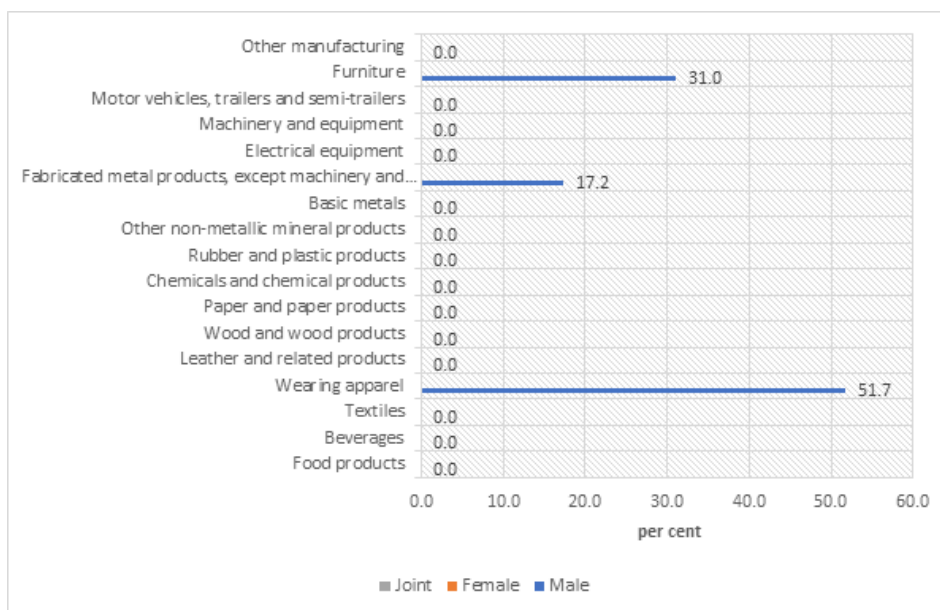
Gender	A11	Micro
Male	430 (100)	430 (100)
Female	0 (0)	0 (0)
Joint	0 (0)	0 (0)
Total	430 (100)	430 (100)

Source: KNBS (2016)

Distribution of Manufacturing firms by gender and sector

Nearly all the sub-sectors in manufacturing are male dominated including wearing apparel (51.7%), furniture (31%) and fabricated metal products (17.2%) (Figure 5.4). Females are not engaged in any of the sub-sectors of manufacturing in the county.

Figure 5.4: Distribution of manufacturing firms by gender and sector

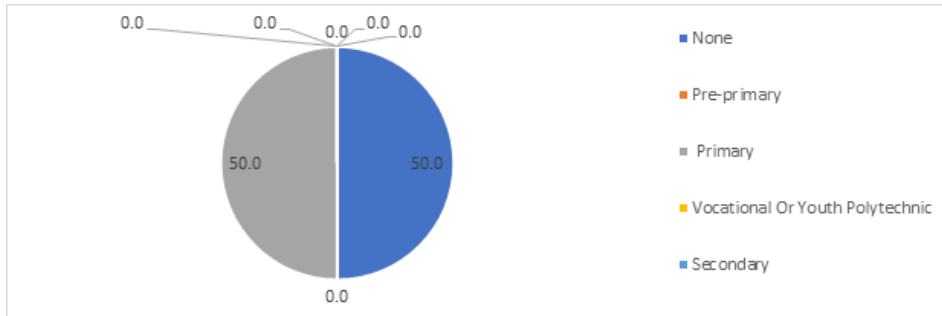


Source: KNBS (2016)

Education levels of manufacturing firm owners

As depicted in figure 5.5, 50 per cent of manufacturing owners in the County have primary education while the rest (50%) do not have any form of formal education.

Figure 5.5: Education levels of manufacturing firm owners

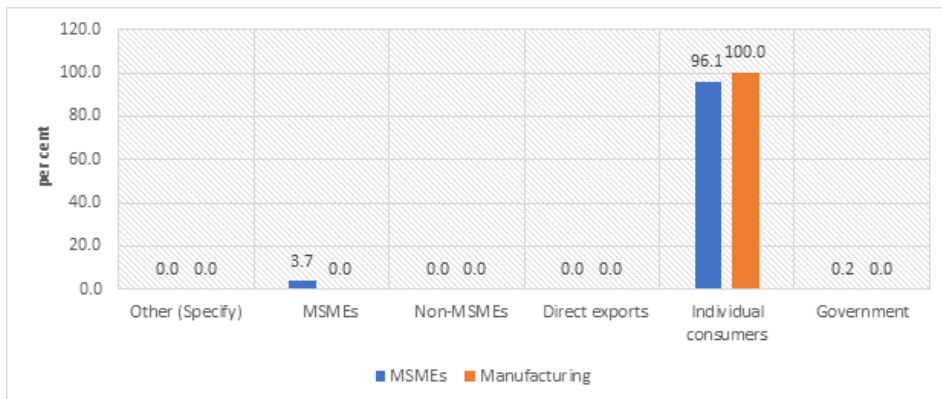


Source: KNBS (2016)

Source of markets

Majority of manufacturing establishments and MSMEs in general rely on individual consumers for markets at 100 per cent and 96.1 per cent respectively (Figure 5.6). In addition, MSMEs also trade amongst themselves (3.7%).

Figure 5.6: Source of markets

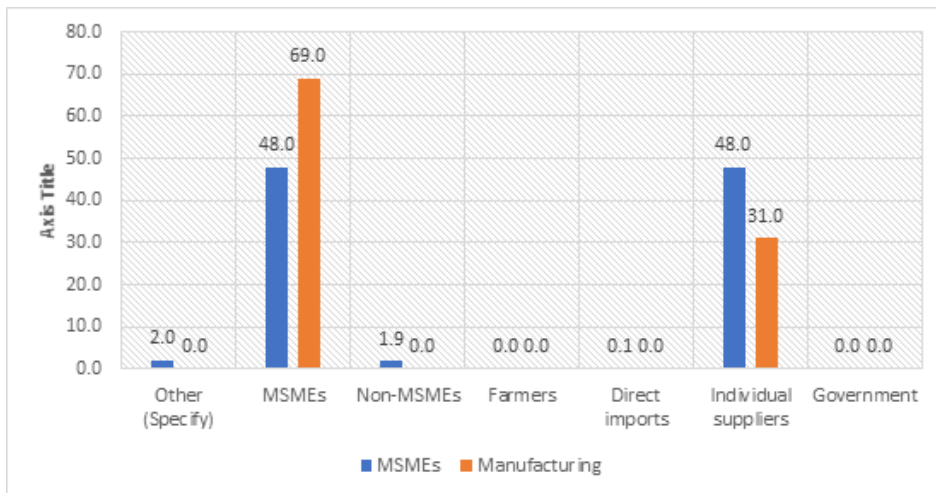


Source: KNBS (2016)

Source of material inputs

Overall, manufacturing establishments and MSMEs source for material inputs from amongst MSMEs at 69 per cent and 48 per cent, respectively (Figure 5.7). Individual suppliers as well as non-MSMEs are also important to the supply of inputs. MSMEs also source for inputs from direct imports (0.1%). Disruptions in the external source markets therefore may have some implications to MSME operations in Mandera County.

Figure 5.7: Source of material inputs



Source: KNBS (2016)

Level of innovation by firms in Manufacturing

The manufacturing establishments in Mandera County were in the micro category only and they were not involved at all in either product, process or market innovations (table 5.2).

Figure 5.8: Level of innovation by firms in manufacturing

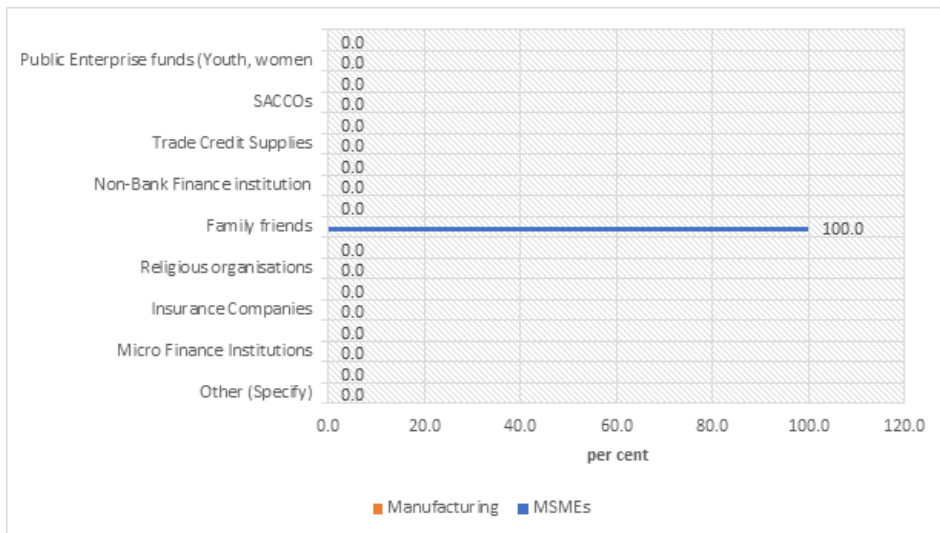
Type of innovation	Micro			Total
	Don't know	No	Yes	
Product	0 (0)	430 (100)	0 (0)	430 (100)
Process	0 (0)	430 (100)	0 (0)	430 (100)
Market	0 (0)	430 (100)	0 (0)	430 (100)

Source: KNBS (2016)

Access to credit for Manufacturing and MSMEs firms

According to the MSME 2016 survey, 99.7 per cent of MSMEs and all of those in manufacturing applied for credit. MSMEs mainly source their credit from family friends (100%) (figure 5.8).

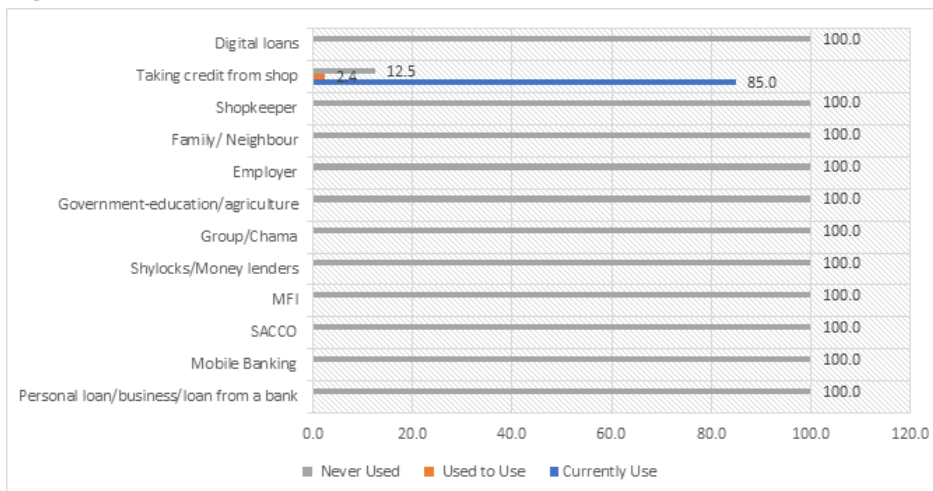
Figure 5.9: Sources of finance



Source: KNBS (2016)

Recent evidence from FinAccess 2019 provides further insights on sources of credit for businesses in Mandera County. Businesses commonly obtain credit from the conventional sources such as shops (85per cent) (figure 5.9).

Figure 5.10: Recent sources of credit

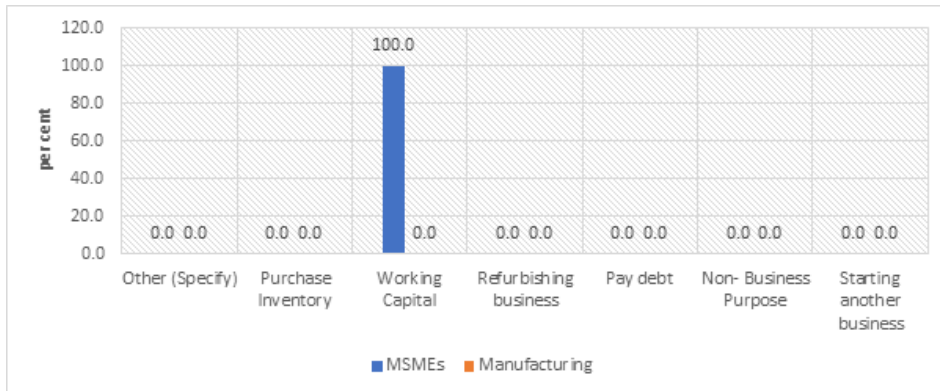


Source: FinAccess (2019)

Purpose of credit

As shown in figure 5.10, MSMEs mainly require credit for working capital (100per cent).

Figure 5.11: Main purpose of credit

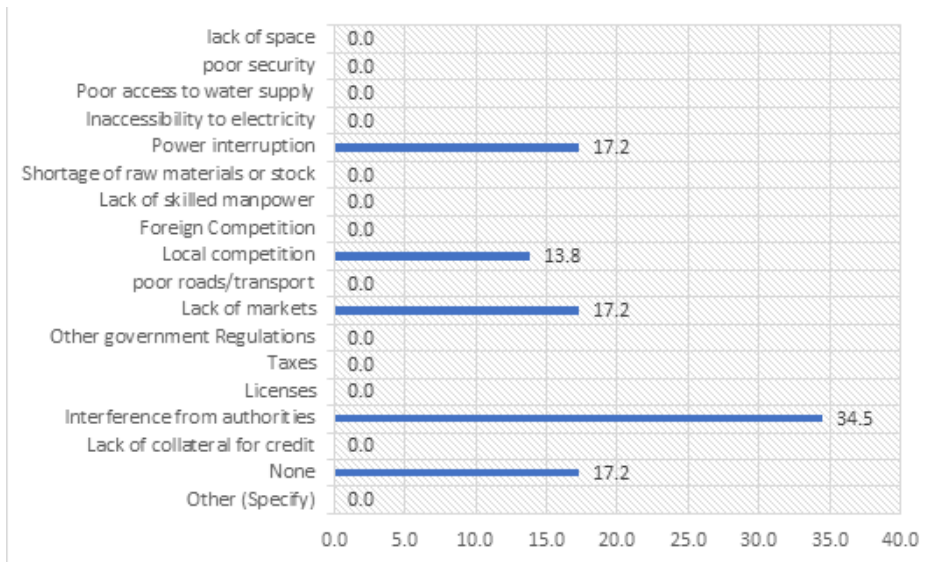


Source: KNBS (2016)

Constraints faced by manufacturing firms

The main constraints faced by manufacturing firms in Mandera County include interference from authorities (34.5per cent), power interruption (17.2per cent), lack of markets (17.2per cent) and local competition (13.8per cent) (figure 5.11).

Figure 5.12: Constraints faced by manufacturing firms

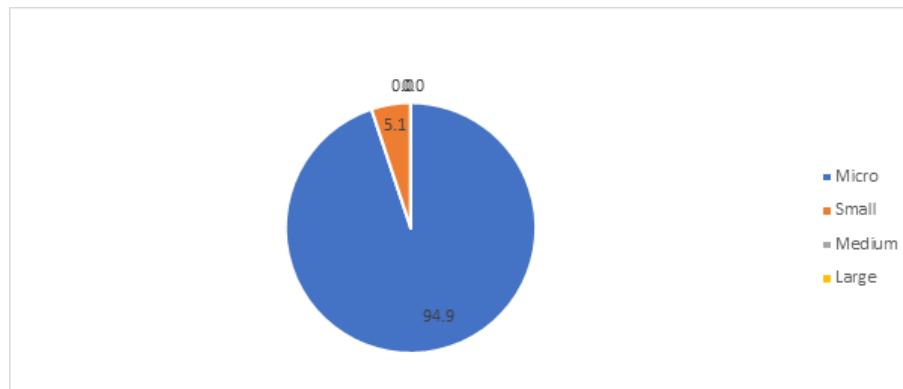


Source: KNBS (2016)

b) Micro, Small and Medium Enterprises (MSMEs)

Mandera County has 25,594 establishments⁵ with 24,292 (94.9per cent) being micro and 1,301 (5.1per cent) are small enterprises (KNBS, 2016) (figure 5.12).

Figure 5.13: Distribution of MSMEs by size

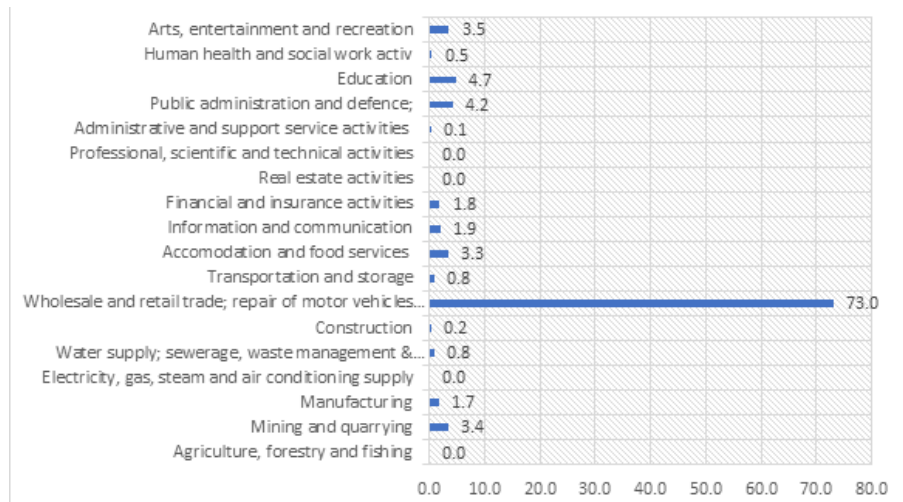


Source: KNBS (2016)

Sector of operation by MSMEs

Majority of MSMEs in Mandera County operate in the wholesale and retail trade, repair of motor vehicles and motorcycles (73per cent), education (4.7per cent), public administration and defence (4.2per cent), arts, entertainment and recreation (3.5per cent), and mining and quarrying (3.4per cent) (figure 5.13).

Figure 5.14: Sector of operation by MSMEs



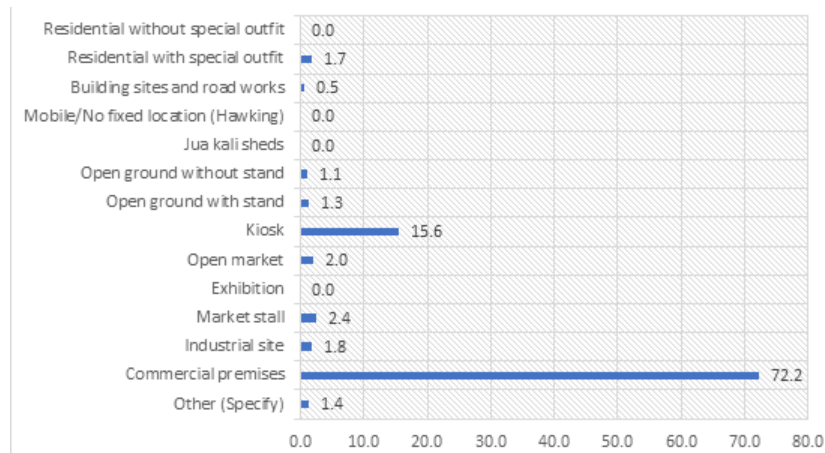
Source: KNBS (2016)

⁵ After applying weights

Location of the businesses by type of premises

MSMEs in Mandera County are mainly located in commercial premises (72.2per cent), kiosk (15.6per cent), market stalls (2.4per cent), and open market (2per cent) (figure 5.14).

Figure 5.15: Location of businesses by premises



Source: KNBS (2016)

Majority of the businesses in the county faced a lot of difficulties in meeting their rental obligations due income disruptions occasioned by COVID-19. According to the May 2020 KNBS COVID-19 survey 74.4 per cent of the non-farm businesses attributed non-payment of household rental obligations to reduced incomes/earnings while 25.6 per cent attributed the same to temporary layoffs/closure of businesses. For those involved in farm businesses, 50 per cent attributed the same to reduced incomes/earnings while 50 per cent were affected by temporary layoffs/closure of businesses.

Distribution of MSMEs by gender and size

Table 5.3 shows the distribution of MSMEs in Mandera County by gender: 71.2per cent are male owned, 26.8per cent are female owned, while 1.9per cent are jointly owned (male/female). For Micro establishments; 70.8per cent are male owned, 28.3per cent are female owned, while 0.9per cent are jointly owned. Male owners also dominate ownership among small sized establishments at 79per cent, while the rest are jointly owned (21per cent).

Figure 5.16: Distrubtion of MSMEs by gender and size -N (Per Cen

Gender	A11	Micro	Small
Male	18,227 (71.2)	17,198 (70.8)	1,028 (79)
Female	6,872 (26.8)	6,872 (28.3)	0 (0)
Joint	495 (1.9)	222 (0.9)	273 (21)
Total	25,594 (100)	24,292 (100)	1,301 (100)

Source: KNBS (2016)

In terms of employment, the micro sized establishments employ more people (66.1%) compared to small (33.9%) (Table 5.4). Further, micro firms in the County employ 50.5 per cent male and 15.6 per cent female while small sized employ 26.5 per cent male and 7.4 per cent female.

Table 5.2: Employment by gender and Size - N (per cent)

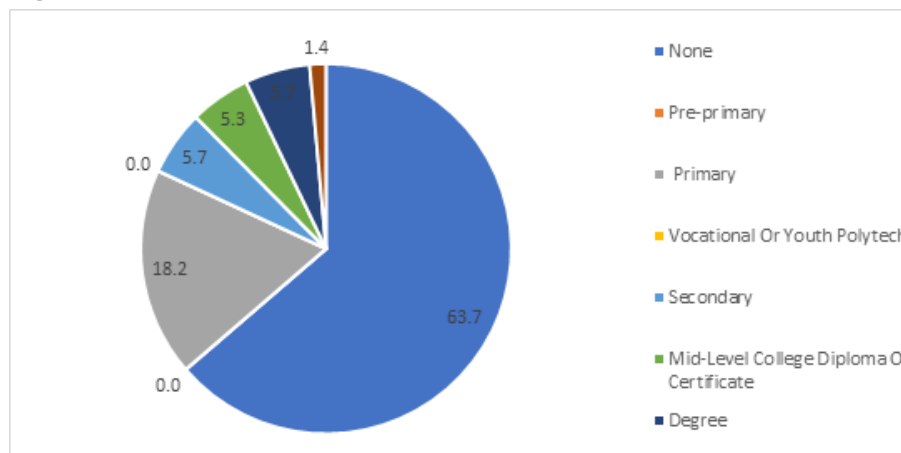
Gender	Micro	Small	Total
Male	58,423 (50.5)	20,118 (26.5)	58,423 (77)
Female	11,826 (15.6)	5,579 (7.4)	17,405 (23)
Total	50,132 (66.1)	25,696 (33.9)	75,828 (100)

Source: KNBS, 2016

Education levels of MSME owners

Education levels of MSME owners in the County are highlighted in figure 5.15 as: primary (18.2%), degree (5.7%), secondary (5.7%), mid-level college diploma or certificate (5.3%), and pre-primary (1.4%). About 63.7 per cent of MSME owners do not possess formal education.

Figure 5.17: Education levels of MSME owners



Source: KNBS (2016)

Level of innovation by MSMEs

Table 5.5 presents the levels of innovation in Mandera County by MSMEs according to size. Overall, there were low levels of innovation across MSMEs with 0.2 per cent involved in product, 0.3 per cent for process, and 0.2 per cent in market innovation for micro-sized enterprises. Regarding small-sized enterprises, only 0.1 per cent were engaged in process innovation.

Table 5.3: Level of innovation by MSMEs

Type of Innovation	Micro				Small				Total
	Refused to answer	Don't know	No	Yes	Refused to answer	Don't know	No	Yes	
Product	0 (0)	0 (0)	24,242 (94.7)	50 (0.2)	0 (0)	0 (0)	1,301 (5.1)	0 (0)	25,594 (100)
Process	0 (0)	0 (0)	24,214 (94.6)	79 (0.3)	0 (0)	0 (0)	1,273 (5)	29 (0.1)	25,594 (100)
Market	0 (0)	0 (0)	24,242 (94.7)	50 (0.2)	0 (0)	0 (0)	1,301 (5.1)	0 (0)	25,594 (100)

Source: KNBS (2016)

E-commerce

Participation in e-commerce by households in Mandera County is below the national average. About 0.9per cent of the households participate in online e-commerce which is below a national average of 4.3per cent (KPHC 2019). In comparison, men participate more in online e-commerce (1.1per cent) than women (0.8per cent). With introduction of stay at home protocols due to COVID-19 online trade has been expected to thrive, little may be impacted in Mandera County since fewer households participate in the same.

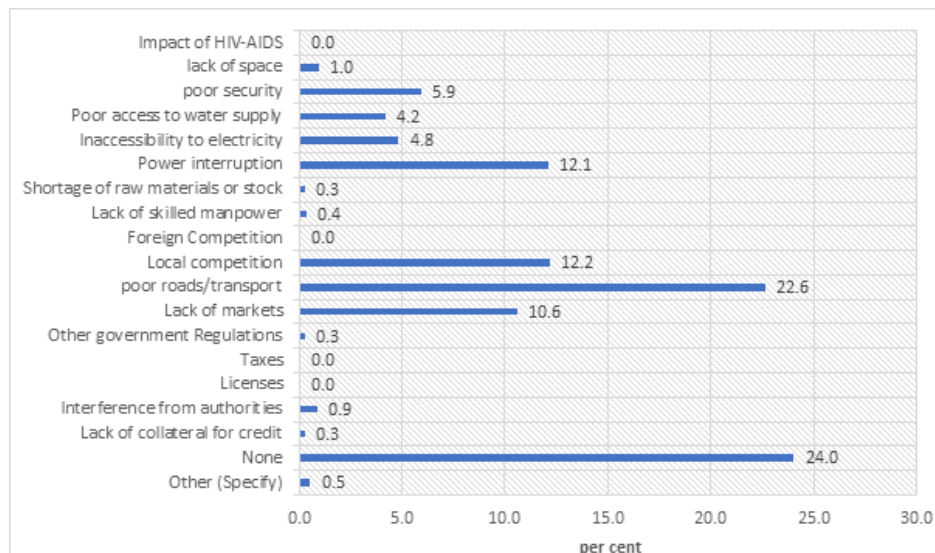
Turnover tax

Only 10.4per cent of MSMEs in Mandera County (2,668) 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 constraints faced by MSMEs in Mandera County are: poor roads/transport (22.6%), local competition (12.2%), power interruption (12.1%), lack of markets (10.6%), poor security (5.9%), inaccessibility to electricity (4.8%), and poor access to water supply (4.2%) (Figure 5.16).

Figure 5.18: Main constraints faced by MSMEs



Source: KNBS (2016)

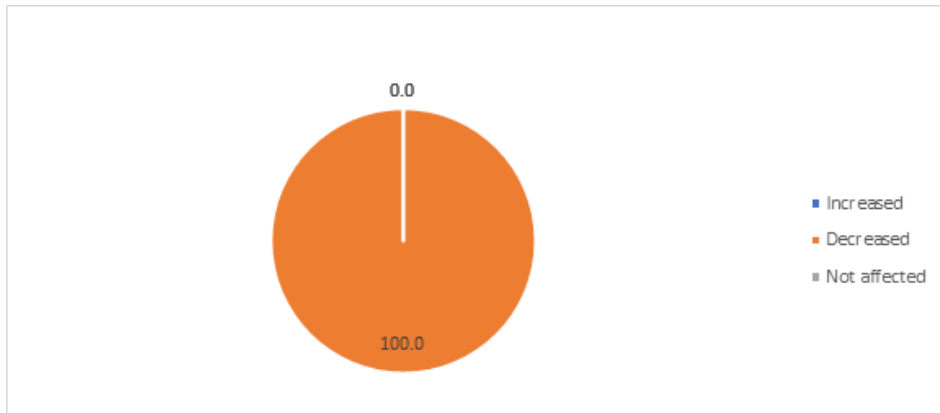
A study on County Business Environment for MSEs (CBEM) identified other constraints faced by MSMEs in Mandera County as: financial and technical capacity, market environment, and worksite and related infrastructure (KIPPRRA 2019). On worksites, MSEs face inadequate and unequipped worksites, lack of public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

These findings are supported by a study on Assessment of the Investment Climate in Kenya by World Bank (2009) which attempted to identify the impediments of productivity growth among Kenyan firms. The analysis showed that the business environment in Kenya is characterized by poor infrastructure, poor governance, insecurity, and complex bureaucratic administrative and regulatory systems.

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

Figure 5.19 presents the effects of COVID-19 on household non-farm and farm businesses in Mandera County. 100 per cent of the respondents report a decrease in their business activities due to the pandemic. This is an indicator that COVID-19 is already having a negative effect on the non-farm and farm businesses even though the situation is still evolving.

Figure 5.19: Effects of COVID-19 on household non-farm and farm businesses

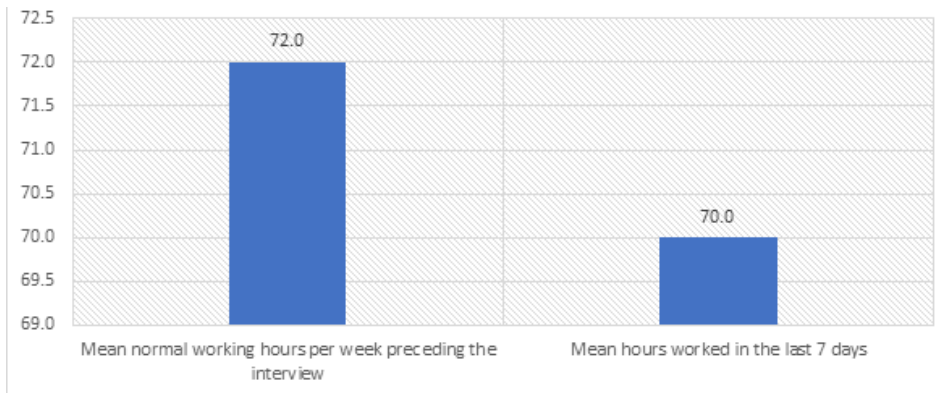


Source: KNBS, COVID-19 Survey 2020

Labour dynamics

During the period considered in KNBS, COVID-19 Survey 2020 data collection, respondents reported a decrease of 2 hours in the mean working hours for household non-farm and farm businesses in Mandera County which implies a deterioration in economic activities between the interview periods (figure 5.20). This could be as a result of agricultural and service activities considering these considerably form the main stay of the County.

Figure 5.20: Labour dynamics on household non-farm and farm businesses



Source: KNBS, COVID-19 Survey 2020

Further, wholesale and retail trade sector lost 2.4 hours in usual and actual hours worked in a week. This implying loss of productivity, output and employment.

Key Messages:

The key sectors that drive the economy of Mandera County include: Services and Agriculture. Hence, support should especially be targeted to these sectors to ensure re-engineering of the County economy.

The key sub-sectors that drive manufacturing include: wearing apparel, furniture, and fabricated metal products, except machinery and equipment.

MSMEs mainly source their credit from family friends (100%). There is need to explore the challenges that make formal financial institutions not advance credit to this segment.

All the sub-sectors in manufacturing are male dominated including wearing apparel, furniture, and fabricated metal products. Females are not engaged in any of the sub-sectors of manufacturing in the County.

The main constraints faced by manufacturing firms in Mandera County include interference from authorities, power interruption, lack of markets, and local competition.

The constraints faced by MSMEs in Mandera County are: poor roads/transport, local competition, power interruption, lack of markets, poor security, inaccessibility to electricity, and poor access to water supply.

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:

Mandera County is now producing masks locally.

- i. The Mandera County colleges have innovated hand free washing machines in order to address the challenges caused by the COVID-19 pandemic.
- ii. Agro - processing for value addition with important areas of focus include livestock production, hides and skins, fruit and vegetable production, oil crops, and apiculture.
- iii. The textile and wearing apparel sectors can be enhanced to provide PPEs for use within the County and potentially for the export market.
- iv. Exploration and processing of minerals such as gypsum, alluvial sand, oil, gold, limestone, coal and precious stones.

Effects of COVID-19 on this sector

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

- i. There has been an increased wave of innovations during the pandemic.
- ii. They 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.

- iii. 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.
- iv. 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

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

- i. The need to identify and promote specific and emerging value chains as a result of COVID-19, and which Mandera County has comparative advantage.
- ii. Review all the ongoing interventions by the County and also the national government to assess their effectiveness and especially regarding trade, manufacturing and MSMEs.
- iii. There is need for legislative amendments to ensure the Buy Kenya Build Kenya initiative is implemented at the County.

5.4 Recommendations

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

- i. Establish an emergency rescue package for businesses and traders hard-hit by the effects of COVID-19 in the short term. The emergency Fund, supported by development partners and other stakeholders, will be used to identify and support the most vulnerable businesses and entrepreneurs affected by COVID-19. Related, the County will inject some stimulus to cushion the businesses and traders through affordable credit, waiver of some County taxes, cess, and other charges.
- ii. COVID-19 has increased demand for locally produced goods in the County, and especially Personal Protective Equipment (PPEs), sanitizers, hospital beds and ventilators. It is an opportunity to spur innovation and promote manufacturing and industry development and generation of jobs for the youth.
- iii. Establishments in the county will adopt to the new pandemic guidelines including rearranging floor plans to allow for social distancing.
- iv. Support and participate in the implementation of Northern Eastern Corridor Transport Improvement Project (NETIP) to spur industrial growth as planned in MTP III.
- v. Participate in rolling out Livestock Insurance Programme for ASAL areas as per Vision 2030 aspirations.
- vi. Fast-track negotiation of tax subsidies with the national government to attract major industries in the County.

- vii. Support establishment of cottage and light industries for value addition.
- viii. Explore opportunities in the natural resources exploitation such as minerals, gums and resins, and livestock-processing industries in the County.
- ix. Fast-track establishment of appropriate legal frameworks and incentives such as land, tax rebates to attract investors.
- x. Fast-track establishment of Leather industries at Takaba town
- xi. Partner with the national government to link the County to the national grid in order to lower the cost of energy.

6. Infrastructure

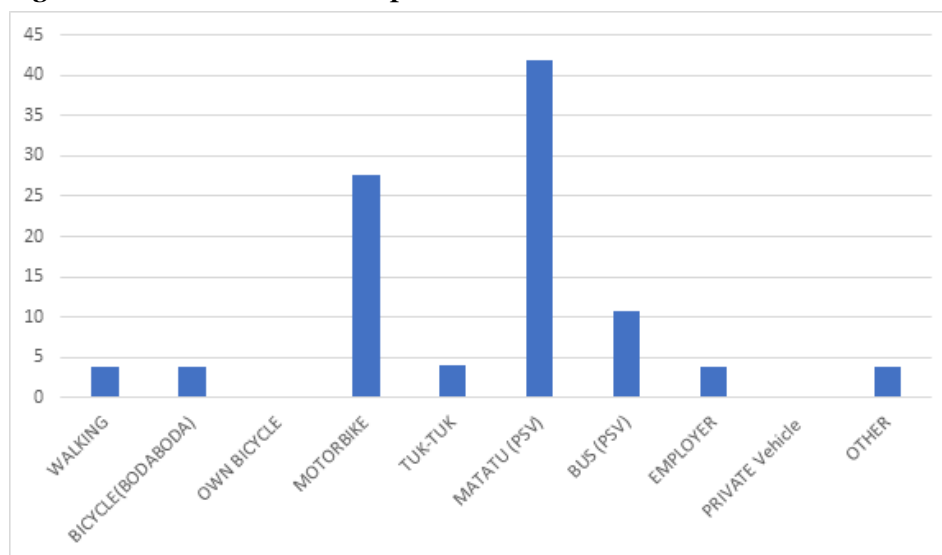
6.1 Transport sector

In response to the COVID-19 pandemic, the County responded by delaying the implementation of some of the projects that are likely to exhaust the budget to next financial year. Some of these projects include construction of roads and TVETs. As a result, this budget was reallocated to public health.

5.4.1 Characteristics of the sector

Majority of households own a motorcycle (6.4%) and a bicycle (3.3%). Car ownership is at 3.0 per cent (KNBS, 2019). The main means of transport used in the County is PSV matatus at 41.85 per cent, followed by motorbike 27.59 per cent, bus (PSV) 10.83 per cent, tuk tuk 4.08 per cent walking at 3.91 per cent, and bicycle (boda boda) 3.91 per cent, Figure 6.1, while 66.58 per cent of the population had not changed the main means of transport (KNBS, 2020b). On average, residents travel 6.58 kilometers to their workplace at an average cost of Ksh 177. For the commute to school, residents spend on average Ksh 296.2 (KIHBS, 2015/16).

Figure 6.1: Main means of transport

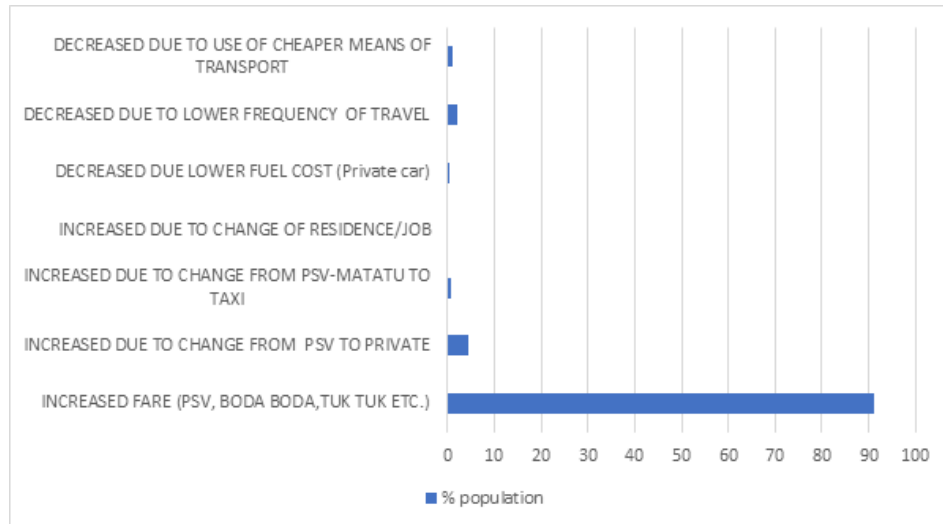


Source: KNBS COVID-19 Impact Survey 2020

The KNBS COVID-19 Impact Survey 2020 revealed that 60.47 per cent of the population reported a change in the cost of travel/commute, figure 6.2. The expenditure on transport increased by 64.06 per cent from Ksh 281 before February 2020 to Ksh 461 in May 2020 for

a oneway trip. The main change (91.16%) in transport cost was attributed to increased fares for PSV, boda boda and tuk tuk.

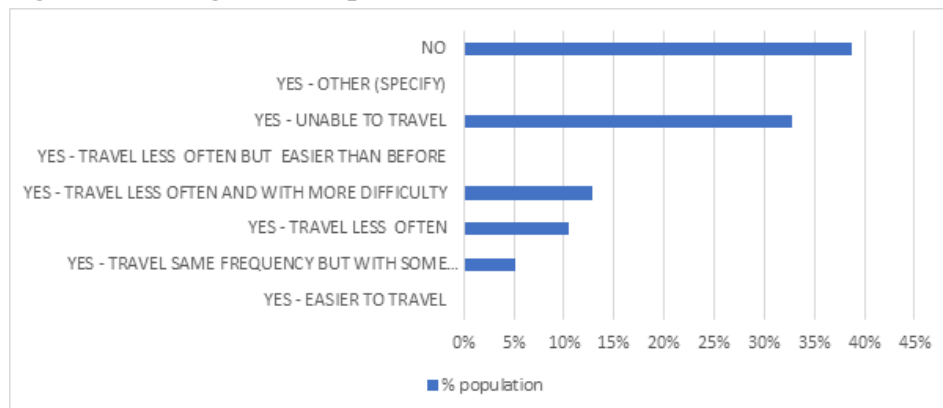
Figure 6.2: Change in Cost of Main Means of Transport



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

Residents had changed their travel patterns with 10.41 per cent of the population traveling less often, while 5.14 per cent travelled with the same frequency but with some difficulty, and 32.81 per cent were unable to travel. However, 38.8 per cent of the population did not change their travel pattern.

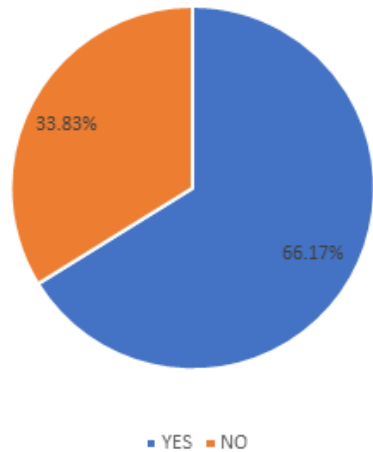
Figure 6.3: Change in travel patterns



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

The pandemic has affected delivery of goods and services for 66.17 per cent of households.

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



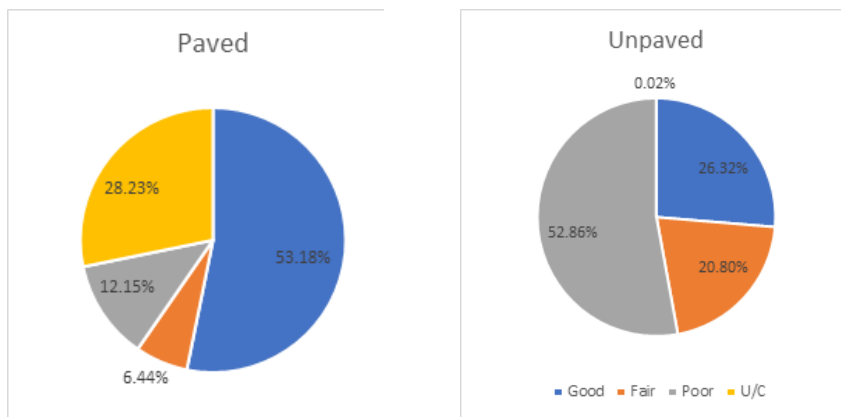
Source: KNBS COVID-19 Impact Survey 2020-wave 2

The County was allocated a total of Ksh 271,489,957 from the Road Maintenance Levy Fund towards road maintenance in the Financial 2017/18 (OCOB, 2019).

Road Network

The county has a total of 3,609.31 kilometres of classified road network. The paved County road network covers 19.67 KMs, while the paved National roads cover 67.32km. Out of the total paved road network of 86.99km, 53.18 per cent is in good condition, 6.44 per cent in fair condition and 12.15 per cent in poor condition. The unpaved road network in the county covers 1817.6km (county roads) and 1140.06km (National roads), of this, 26.32 per cent is in good condition, 20.8 per cent fair and 52.86 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 564.67km, with 33.73km of narrow roads, that is, road with a reserve of between 4 -9 meters, while there is a total of 530.94km of new roads.

Constraints faced

The Rural Access Index (RAI) measures the proportion of the rural population who live within 2 km of an all-season road⁶. The county has a RAI of 20 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 52.86 per cent is a constraint to development.

6.1.1 Opportunities with COVID-19 in transport sector

With reference to the 8 point stimulus programme by the National Government⁷ and resources allocated to road development and maintenance, the County has the opportunity to strategically improve the road network for economic development, while creating jobs for youth, women and vulnerable groups as espoused in the Roads 2000 programme⁸ on labour based road development approaches.

The Roads 10,000 programme being implemented nationally by the roads sub-sector actors, and specifically, the Low Volume Sealed Roads (LVSR) approach⁹ offers a strategic and cost-effective approach to improve rural accessibility in the County.

Residents predominantly rely on matatu PSV transport and walking, this is an opportunity during the pandemic period as this mode reduces the risk of infections that would arise from use of motorized public transport¹⁰.

6.1.2 Emerging Issues

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

5.4.2 Recommendations

- i. Sensitize PSV and boda boda operators on COVID-19 prevention measures and assist vehicle owners in retrofitting vehicle designs for social distance, hygiene and ventilation.
- ii. Identify a core rural road network for prioritization to improve the rural access index

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

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

8 Roads 2000 programme <http://krb.go.ke/our-downloads/roadsper cent202000per cent20strategieper cent20plan.pdf>.

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

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

(RAI) from the current 20.0 per cent with a target to match the national average of 70.0 per cent.

- iii. Expand the county capability for telecommuting and teleworking and develop relevant policies in support of the same.
- iv. Identify county significant infrastructure projects for implementation under a stimulus programme to support economic recovery from the effects of the pandemic. For these, 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 policy¹¹.
- v. Improve and expand infrastructure for Non-Motorized Transport (NMT) in urban areas and along roads with heavy -high speed traffic to promote sustainable mobility options and enhance road safety for all road users. This is in line with the Integrated National Transport Policy 2009 and the Sustainable Development Goals¹².
- vi. Re-develop bus parks and termini to address crowding and social distancing concerns stipulated in the public health guidelines.
- vii. 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.
- viii. Adopt climate smart road engineering designs to safeguard road and bridge infrastructure from floods and to harvest storm water for irrigation and productive use. Use the Kenya Urban Support Programme funding to build storm water management systems in urban areas.

6.2 Information and Communication Technology

The County has been expanding especially using e-platform and IFMIS however some of these projects has slowed down because of low connectivity but overall, they have improved in ICT. The county can now hold meetings using ICT. The county has also improved its ICT software and communication platforms, for example, it is making use of Zoom and WhatsApp applications. One overall challenge is delay in ICT infrastructure like IFMIS and OSR application, the budget was reallocated to COVID-19 related issues.

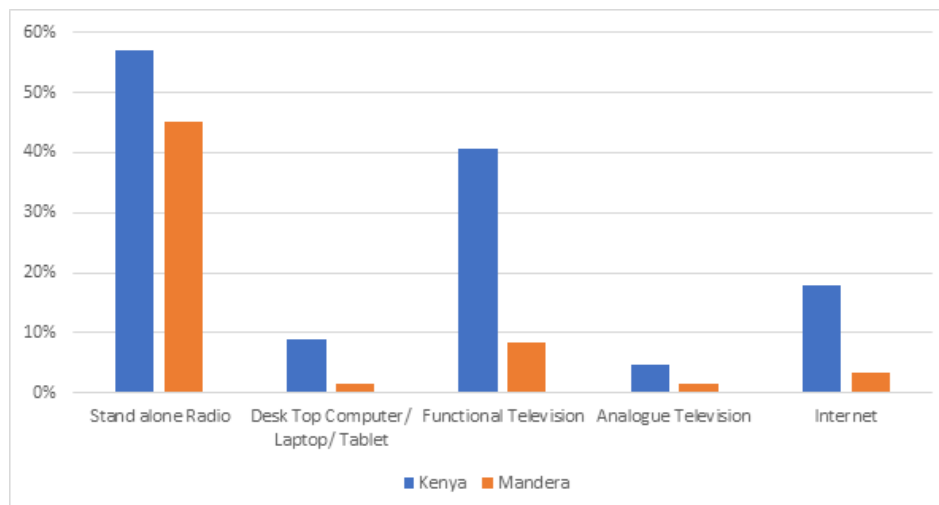
6.2.1 Characteristics of the sector

The analysis of the 2019 KPHC reveals that only 3.5 per cent of the conventional households in the county 'own' internet with 1.5 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).

¹¹ Roads 2000 programme <http://krb.go.ke/our-downloads/roadsper cent202000per cent20strategicper cent20plan.pdf>.

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

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



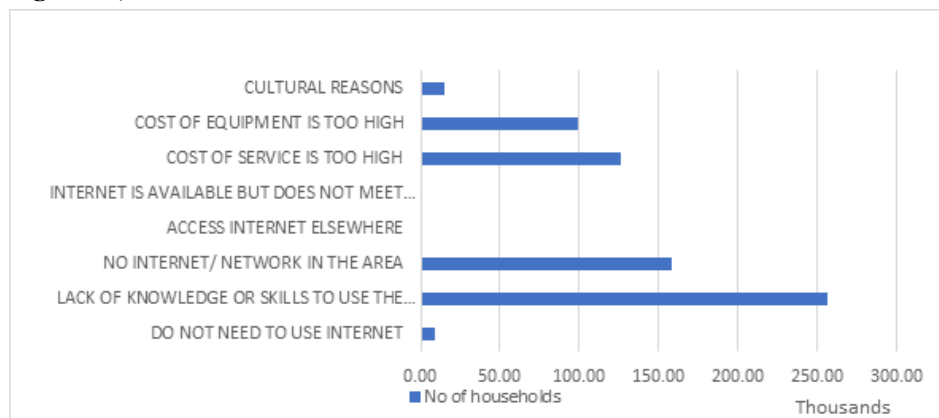
Source: KNBS 2019, Kenya Population and Housing Census

Online shopping is not prevalent in the County. 0.9 per cent of the conventional households searched and bought goods/services online. There exists gender disparity in online shopping with more men (1.1 per cent) than women (0.8 per cent) undertaking online shopping.

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

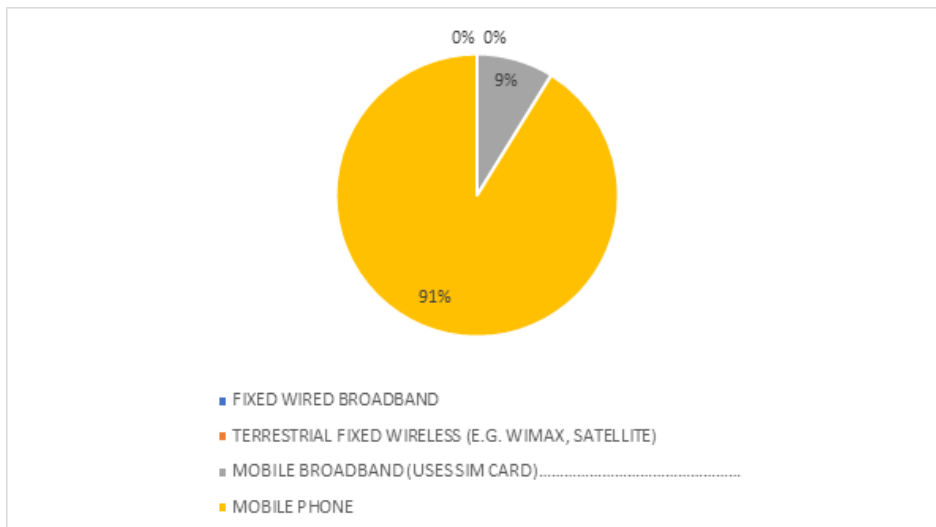
Approximately 91 per cent of the internet users in the county rely on mobile phone for connectivity, with a marginal population of 9 per cent relying on mobile broad band that uses a sim card for connectivity.

Figure 6.7: Reasons for lack of Internet connection



Source: KNBS, 2016-KHIBS 2015/2016

Figure 6.8: Type of Internet connection



Source: KNBS, 2016- KHIBS 2015/2016

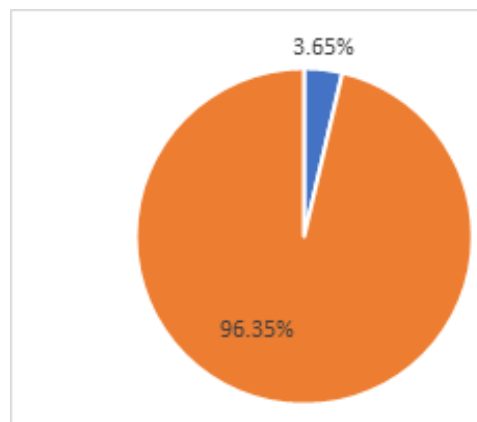
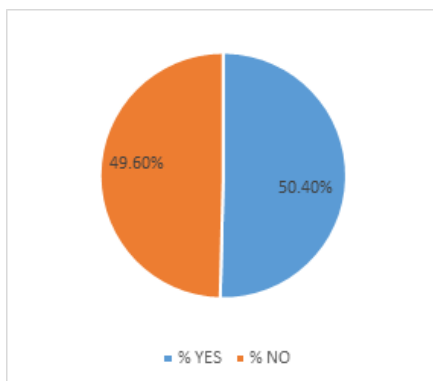
Approximately 25.3 per cent of the population aged 3 years and above own a mobile phone which is lower than the national average of 47.3 per cent.

Approximately 50.4 per cent of the people in the county have a mobile money subscription compared with only 3.65 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

Mobile money transfer subscription KHIBS 2015/16

Mobile money banking platform Subscription KHIBS 2015/16



Source: KNBS, 2016- KHIBS 2015/16

The county experience gender divide in use of internet and ICT devices as well as mobile money subscriptions. Both internet and ICT device use is higher among the male with 8.8 per cent of the men and 6.8 per cent of the women using internet, while 3.1 per cent of the men and 2.3 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.

5.4.3 Opportunities with COVID-19 in ICT

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

6.2.2 Emerging Issues

The status of ICT access and use in the county is low, especially among households

6.2.3 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 25.3 per cent to 100 per cent in line with the global agenda for Universal Access to Mobile Telephony¹³
- ii. Harness the power of technology and use innovative solutions to bridge the gender digital divide and promote technology adoption in daily socio-economic activities.
- iii. Collaborate with the Communications Authority and telecom service providers to utilize the Universal Service Fund¹⁴ as a “last resort” in providing ICT access in remote areas where market forces fail to expand access and increase access to reliable and affordable internet service.
- iv. Deploy IT personnel in public primary schools to support the development of ICT competence and skills among the children.
- 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. Develop an ICT based document management system for appropriate records and documentation management as outlined in the CIDP.
- vi. Make ICT a standalone sector for planning and budget allocation. This is aimed at giving strategic prominence to planning, budgeting and investment in ICT.
- vii. Develop and implement ICT policies and procedures to manage ICT 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. This is because enhanced use of ICT is known to raise threats and risks related to cyber-crime and misinformation.

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

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

7. Housing and Urban Development

There are six urban centers in the County with a total population of 50.1 per cent males and 49.9 per cent females. The urban land area covers 170 square kilometers with a population density of 1595 persons per sq.km

Table 7.1: Distribution of Population by Urban Centers by Gender

Mandera	Mandera	114,718	60,053	54,660
Mandera	El Wak	60,732	27,852	32,878
Mandera	Rhamu	35,644	18,430	17,213
Mandera	Lafey	22,882	10,745	12,136
Mandera	Takaba	21,517	10,731	10,786
Mandera	Banisa	14,974	7,737	7,236

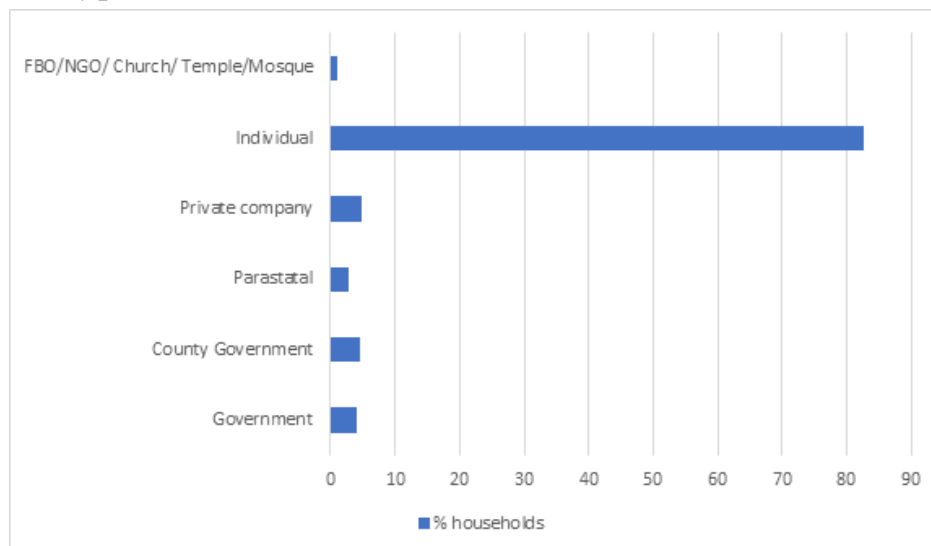
Source: KNBS 2019- Kenya Population and Housing Census

7.1 Characteristics of the Sector

The housing tenure is predominantly owner occupied at 92.4 per cent, with 7.6 per cent of the households under rental tenure. Individuals are the primary providers of rental housing at 82.6 per cent, followed by Private Companies (4.9%); and County Government (4.6%); For those who own homes, 83.3 per cent constructed the houses while 12.5 per cent purchased the house and 4.1 per cent inherited their homes (KNBS, 2019).

Majority of households are headed by men (55.35%) compared to women (44.65%) in the County (KIHBS, 2015/16).

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

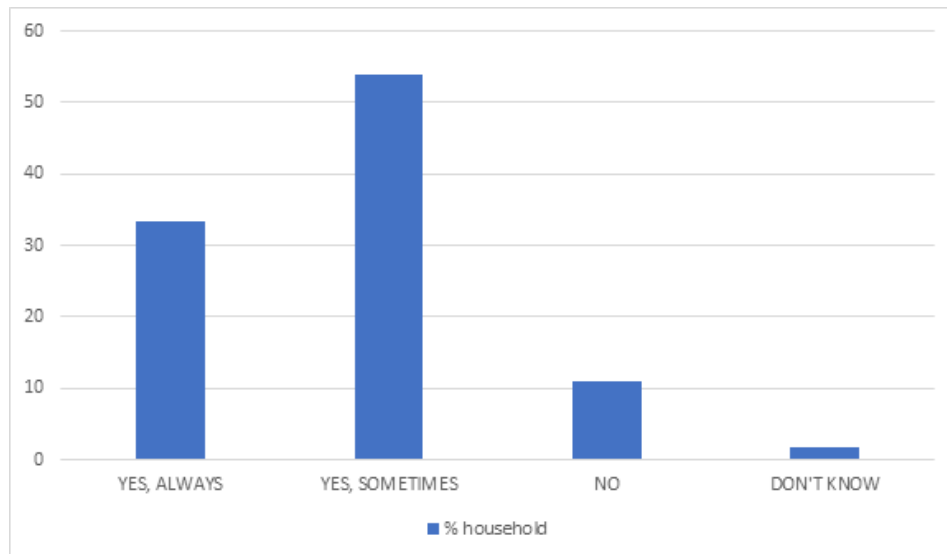
On average, the main dwellings of houses in the County have 1.25 habitable rooms against an average household size of 4.23 persons in a household, translating to approximately 3.38 people per room. According to the UN-Habitat, overcrowding occurs when there are more than three people per room¹⁵. In terms of housing quality (building material), 18.67 per cent of houses are constructed using finished materials for walls, floor and roofing compared to 81.33 per cent constructed using rudimentary materials (KIHBS, 2015/16). Majority of households (80.4%) have Grass/Twigs for roofing, Grass/Reeds walls (33.6%) and Earth/Sand floors (78.6%) (KNBS, 2019).

Rent Payment

On average, rental households spend approximately Ksh 8486 on rent with a minimum of Ksh 300 and the maximum of Ksh 30000 (KNBS, 2020b). With the advent of COVID-19 pandemic, households ability to pay rent has been affected, with 7.21 per cent of the population indicating inability to pay rent on the agreed date for April 2020 figure 7.2, compared to 15.02 per cent of the population that were able to pay rent on the agreed date and 33.48 per cent who paid rent on agreed date before COVID-19 pandemic.

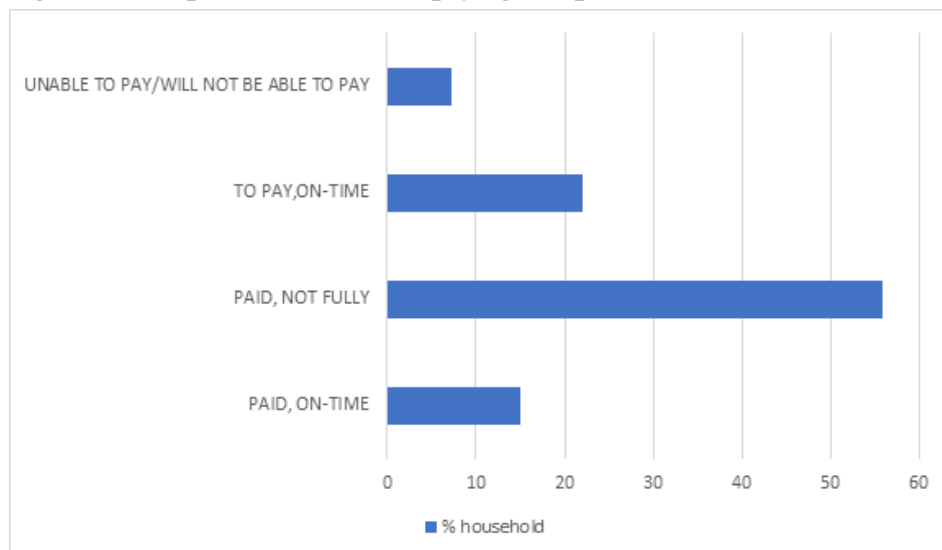
15 Household crowding measure: [https://www.ncbi.nlm.nih.gov/books/NBK535289/table/ch3.tab2/#:~:text=Overcrowdingper cent20occursper cent20ifper cent20thereper cent20are,perper cent20habitableper cent20roomper cent20\(88\).&text=Crowdingper cent20occursper cent20ifper cent20thereper cent20is,per cent20Drooms\)per 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: May 2020 KNBS COVID-19 survey

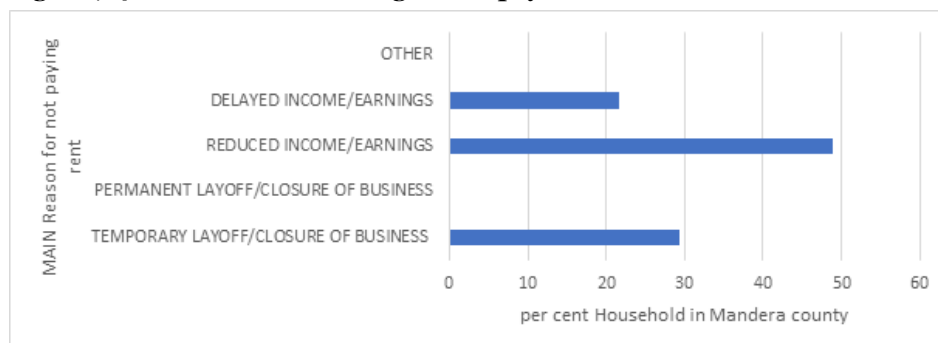
Figure 7.3: Proportion of residents paying rent per terms of contract



Source: May 2020 KNBS COVID-19 survey

The main reason that has made households unable to pay rent was attributed to reduced incomes /earnings, reported by 48.99 per cent of the population. The inability to pay rent was attributed to the COVID-19 pandemic by 98.17 per cent of the population.

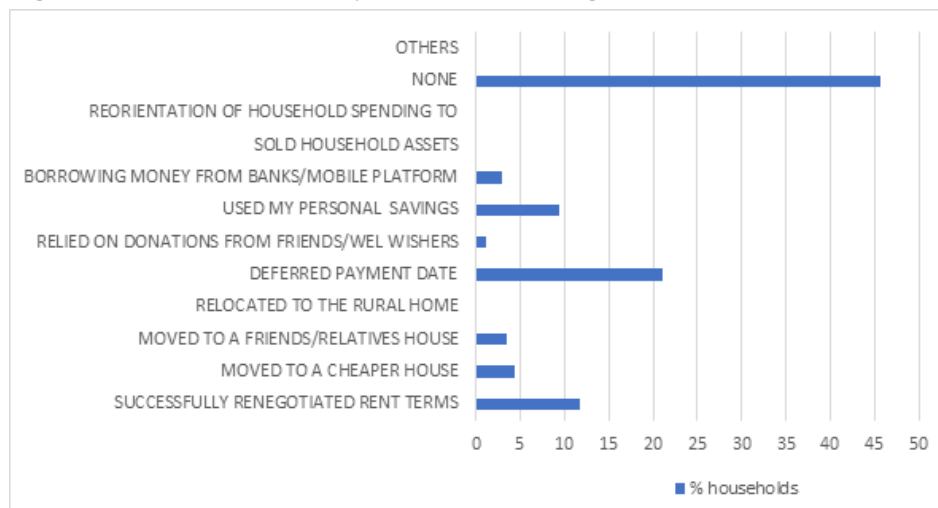
Figure 7.4: Reasons for not being able to pay rent



Source: May 2020 KNBS COVID-19 survey

Majority of the households (86.8 per cent) did not receive a waiver or relief on payment of rent from the landlord, with 2.98 per cent reporting a partial waiver and no reporting on full waiver. To overcome the effects of Corona virus on payment on rent 11.75 per cent of households renegotiated rent terms, while 45.69 per cent of households did not take any measures. Approximately 9.44 per cent used personal savings to pay rent.

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



Source: May 2020 KNBS COVID-19 survey

With regard to primary energy source for cooking, 96.7 per cent of households rely on unclean sources of energy for cooking such as firewood, paraffin and charcoal, which could adversely affect respiratory health of women and children.

7.2 Opportunities in Housing and Urban Development

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

7.3 Emerging Issues

Approximately 18.7 per cent of houses are constructed using finished materials for walls, floor and roofing, compared to 81.3 per cent constructed using rudimentary materials.

7.4 Recommendations

- i) Fast tracking implementation of the affordable housing programme in partnership with the private sector targeting urban centers
- ii) Developing a policy to promote home ownership to address the problem of rent distress during times of emergency.
- iii) Developing and implementing an addressing system with complete, correct and unique address data in line with the National Addressing System to be used for pandemic and disaster surveillance and emergency response.
- iv) Availing appropriate building technology for use by the public in house construction and improvement in every sub-county, that responds to local cultural and environmental circumstances.
- v) Identifying and designating urban centers for upgrade pursuant to provisions of the Urban Areas and Cities (amendment) Act, 2019.
- vi) Developing and implementing urban planning and design instruments that support sustainable management and use of natural resources and land in line with the New Urban Agenda and as mitigative measure to future pandemics and disasters.
- vii) Adopting programmes aimed at increasing household access to clean energy sources and technologies for cooking to mitigate against exposure to respiratory diseases.

8 Tourism

8.1 Characteristic of the Sector

Mandera County is a hilly landscape whose key tourist attraction are wildlife and Malkamari Game Reserve. The county does not have classified hotels. There are medium-class hotels in major towns and smaller hotels and restaurants distributed across Mandera Town. The County Government plans to construct a model 4-star hotel. Accommodation and food services account for 0.3 per cent of total GCP.

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

- i. Mapping all the sites with tourism potential in the county; coming up with a tourism sector development master plan; protecting cultural heritage sites.
- ii. Tourism product diversification and marketing; niche products such as annual cultural festivals, and animal sanctuaries / wildlife reserves.
- iii. Setting up a cultural documentation centre and tourism information centre.
- iv. Ensuring high sanitation standard in the hotel facilities to deter spread of COVID-19 in line with the national guidelines for reopening of the hospitality sector.
- v. Ensuring security in the County.

9 Health

9.1 Characteristics of the Sector

General health provision in the County

The county has a total of 88 public health facilities segregated as one referral hospital (level 5), six sub county hospitals (level 4), 81 primary health facilities such as health centres (level 3) and dispensaries (level 2). There are 15 community units (level 1) managed by community health assistants within the county. In addition, there are 24 nursing homes and 106 private health clinics. In total, there are 202 health facilities in the county.

Table 9.1: Health provision

Year	2017	2018	2019/20
Health facility density			
Primary health facilities		59	181
Hospitals		5	13
<i>Number of health facilities</i>		64	194
Health facility density		1.1	2.8
Bed density			
Hospital beds		1,166	1,333
No. of Beds per 10,000 population		18	20
Human resource density			
Total workforce		473	1,217
Human Resources for Health (Technical)		412	817
Number per 10,000 population		5.3	9.1

Source: Ministry of Health (2021)

In 2019/2020, the number of health facilities in the county were 194 which comprised of 181 primary health facilities and 13 hospitals. This was an improvement from a total of 111 health facilities in the previous year, 2018. The number of beds per 10,000 population is 20 against the WHO recommendation of 30 beds per 10, 000 population. The health facilities and personnel serve a growing population of 867,457 people according 2019 census. In 2019, total health workforce was approximately 1,217 representing 9.1 health workers per 10,000 population which is below the WHO target of 23 health workers per 10,000.

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

Type of Health Provider	Percentage Distribution of the Population
Government hospital	24.1
Government health centre	16.9
Government dispensary	35.0
Faith Based (church, mission) hospital / clinic	0.0
Community health	0.0
Private hospital / clinic	25.3
Nursing/ maternity Home	0.8
Pharmacy/ chemist	0.3
Community health worker	2.5
Shop/ kiosk	0.0
Traditional healer	1.7
Faith healer	0.2
Herbalist	0.0
Other	0.0
Number of Individuals ('000)	84

Source: KIHBS 2015/2016

Table 9.2 presents the distribution of population reported to have been sick or injured and the type of health provider they visited. Majority of the County residents who reported illness visited government dispensaries (35 per cent) followed by those who visited private hospitals (25.3 per cent) and government health centre (16.9 per cent). About 24.1 per cent of county residents who reported illness also visited government hospitals.

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, 1.3 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 91.3 per cent of the population. Employer contributory insurance cover was reported by 3.1 per cent of the population. Private contributions to insurance cover were reported by 2.5 per cent of the population.

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

Source of Health Insurance	Percentage Distribution of the Population (per cent)
Population ('000)	711
Share of population with health insurance (per cent)	1.3
NHIF	91.3
Private-Contributory	2.5
Private-Non-Contributory	0.0
Employer-Contributory	3.1
Employer-Non-Contributory	0.0
Other	0.0
Number of Individuals ('000)	9

Source: KIHBS 2015/16

Place of delivery

In the 2015/16 KIHBS, women in Mandera 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 70.8 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 12.1 per cent, 7.2 per cent, and 6.6 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	12.1
Health Centre	7.2
Clinic/ Dispensary	6.6
Maternity Home	2.1
At Home	70.8
Other	0.0
Not stated	1.2
Number of Individuals ('000)	117

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 9.8 per cent of the children aged 12-23 months were fully immunized against measles at 9 months while 0.6 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	13.9
	Yes, Not Seen	72.0
	No	12.3
	Not stated	1.9
Measles Vaccination	Measles I (At 9 months Card)	9.8
	Measles II (At 18 months Card)	0.6
	Measles II (Mother/ Guardian memory)	69.3
	Either (card or memory)	79.1
Number of Individuals ('000)		117

Source: KIHBS 2015/16

Health outputs

Since health is a human right, the health sector in Mandera County serves 70 per cent of cross border population from Somalia and Ethiopia. In this regard, all these facilities located along the borders with Ethiopia and Somalia are overstretched. These include Mandera County Referral Hospital, Elwak, Lafey, Banisa and Rhamu Sub- County hospitals and all the health facilities along the border with Somalia and Ethiopia. The health workforce in the county is 864 including 330 nurses, 54 doctors, 104 clinical officers, 37 pharmtech and 68 lab technicians. Most of the primary health care facilities require adequate personnel and health commodities.

The five most common diseases in order of prevalence are Lower Respiratory Tract Infection (LRTI), dengue fever, pneumonia, diarrhoea, tuberculosis and obstetric complications. Mandera County had the highest maternal mortality rate in the Country prior to devolution. This stood at 3,795/100,000 live births according to the Kenya population situation analysis report, 2009) as opposed to the average for the country that is 488/100,000 live births. The County Government embarked on strategies to reverse the maternal mortalities and improve on the maternal healthcare. However, according to Kenya Demographic Health Survey 2014, the infant mortality stood at 72/1000 live births, under-5 mortality was 80/1000 live births while neo-natal mortality stood at 72/1000 live births, an improvement from the previous years. Most of the health facilities now offer basic neonatal and obstetric care services while six sub-county hospitals facilities offer comprehensive obstetric and emergency care. Up to

70 per cent of the health care workers have been trained on EMOC through support of health partners. Many mothers now trust public health facilities, which has increased the skilled birth attendance to 38 per cent, while 4th ANC visit stands at 36 per cent. This has significantly reduced the maternal mortality rate in the county.

These undesirable statistics were attributed to a myriad of reasons, that include; low uptake of skilled birth attendance 38.7 per cent (KDHS, 2014), poor road transport to enhance referrals, few functional health facilities (53 existing but only 3 were functioning at 10 per cent), inadequate health workforce, supplies, equipment and medical devices, poor referral system, and community related delay factors

In terms of height-for-age, 36.1 per cent of children (6-59 months) are chronically undernourished, and therefore are short for their age. In terms of weight-for-age, 24.9 per cent of children (6-59 months) in the county are underweight and 14.8 per cent are wasted. The immunization coverage for the county stood at 42.7 per cent. Most of the functional health facilities provide immunization services. The non-immunizing health facilities include the newly operational primary healthcare facilities due to absence of cold chain equipment and a few old facilities due to breakdown in the cold chain system. The county receives vaccines from the Nairobi depot on quarterly basis, which is posing a logistical challenge to the department.

The county's HIV and Aids prevalence rate stands at 0.2 per cent. However, the County Government has equipped all its major health facilities with VCT centres complete with skilled personnel to facilitate access to counselling, drugs and other services. The department has partnered with other stakeholders in sensitizing the community on the pandemic and offering healthcare services to the affected. These partners include NACC, MOH, Save The Children, Islamic Relief, UNICEF, UNFPA and WHO.

To address these negative excesses, Mandera County Government came up with a deliberate investment strategy in line with Millennium Development Goals (MDG) No 3&4, the National Reproductive Health policy and Vision 2030, whose objective was to accelerate the reduction of maternal, newborn and childhood morbidity and mortality. Beside overall investment agenda, Mandera County Government has made maternal and neonatal child health care the top priority area in the health service delivery.

Table 9.6: Health indicators in Mandera county

Key Health Indicators	County Estimates
Maternal and Child Services	
<i>Skilled delivery (per cent)</i>	38.7
<i>Children born at home</i>	61.2
<i>Fully immunized child</i>	42.7
Child Mortality	
<i>Infant mortality (*1000)</i>	72
<i>Under-5 mortality (*1000)</i>	80
<i>Neo-natal mortality (*1000)</i>	72
Nutrition Status	

<i>Stunted children (per cent)</i>	36.1
<i>Wasted children (per cent)</i>	14.8
<i>Underweight children (per cent)</i>	24.9
HIV (per cent)	
<i>HIV adult prevalence (per cent)</i>	0.2
<i>Children with HIV(No.)</i>	182
<i>ART adult coverage (per cent)</i>	55
<i>ART children coverage (per cent)</i>	21

Source: KDHS, 2014; DHIS 2018

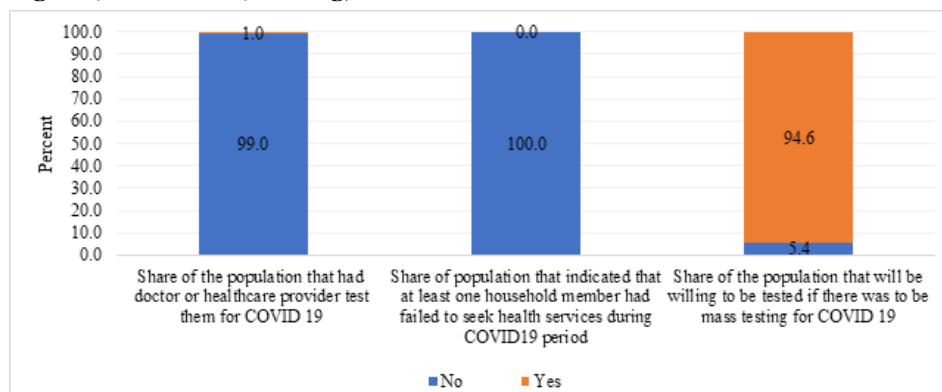
Effects of COVID-19

The County has constructed two fully equipped accident and emergency centres at the Mandera County referral hospital and Elwak Sub- County referral hospitals at a cost of Ksh 400 million. Each of the facilities will house a 5 bed ICU, 5 bed HDU, 7 bed renal Unit, State of the art theatre, Imaging wing, endoscopy centre besides other specialized departments. It has further constructed and equipped two multimillion-shilling modern maternity wings complete with theatres and newborn units at a cost of Ksh 140 Million. This has significantly reduced the number of cases referred to Nairobi and Garissa. The maternity wings will also reduce the maternal complication cases and maternal mortality, a campaign that is the county administration's priority. Four Sub-County hospitals have so far conducted successful caesarian section without referral to Mandera Referral Hospital.

The county has channeled resources from other sectors to health and as a result, ICU beds have been increased in Mandera referral hospital, 5 HDU beds. In addition, facilities in the hospital were improved and this includes about 300-bed capacity across the county. There is a plan to extend the improvement of health services to the rural parts of the county and funds were allocated for the same. The county has enhanced local masks production, which is an ongoing process. The colleges within the county have continued to design and produce washing kits.

The county has procured several medical equipment and supplies for the hospital and for the front health workers. This has had a negative impact of revenue. A section of Mandera referral hospital has been transformed to an isolation center with some medical services like maternity to satellite hospitals across the county. The county is also planning to move this isolation center from the main hospital so that the normal services can resume, it is expected to be a peripheral hospital which is near completion, and this will enhance normal services to resume at the main hospital.

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 2.7 per cent in 2020 (COVID-19, Wave 2 survey). This small number shows that there is a large population of people in the county who have not yet been tested for COVID-19. Further, only 2.0 members of the population indicated that at least one household member had failed to seek health services and 74.6 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 Mandera County (NAYS report of 2020). The closure of schools due to COVID-19 has not been any good news, the social impact on the children who are now at home has been huge, the girl child has been affected, this has seen one in ten girls being victims of teenage pregnancies this is alarming. Other health problems affecting youths are Malaria, abortion, abortion dug and substance abuse (DSA), malaria, mental health, malnutrition sexually transmitted infections such as HIV and AIDS.

Some of contributing factors include idleness, lack of health education, negative cultures as highlighted above, parental negligence and lack of guidance, peer pressure, illiteracy and high poverty levels. The 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.

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 county partnered with KMTC to redouble human resource for health needs by training more locals, to cushion the county from terror shocks that has affected the county in the past. Over the first two years of devolution, the county suffered loss of medical personnel to other counties who were largely non-locals. Currently, the county has successfully managed to get close to 80 per cent of its health workforce as locals, which has successfully cushioned it against terror shocks and disruption of service delivery.

Moreover, localizing the workforce is nothing to be proud of since the envisaged position is to have inclusive and integrated workforce, but the prevailing circumstances made it inevitable. It faced the challenge of inability to attract specialized cadre despite many attempts to recruit them. Further, increasing the number of healthcare staff has significantly improved service delivery and reduced the doctor and nurse to population ratio from 1: 49,982 to 1: 5,222.

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 in order 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.

Although the county has been putting a lot of effort in fighting the pandemic, there other several challenges that have been slowing the fight. For instance, lack of finances. The county had not envisaged a health pandemic of this magnitude hence overreliance on the national government for support. I addition, local revenue collection is bound to happen since many economic activities had been disrupted by the country lock down and curfew. Many commodities, which were being sold outside the county, had been affected as well.

The county is also likely to face protracted labor disputes especially with medical officers who might demand more risk allowances during this pandemic period. The county is also struggling with the health sector after devolution. There were 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 beds.

The sector has linkages with the Education, ICT, WASH and Agriculture sectors. There is a direct proportionality between education and health. The higher 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 contribute greatly in reduction of diseases such as cholera, typhoid and other waterborne. This is because by maintaining good hygiene such as washing hands after visiting toilets, washing fruits before eating and boiling/treating drinking water.

Good disposal of waste by avoiding open defecation and using toilets also 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 Frontier FCDC 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 been used in the movement from place to another, conference hall fee as well as accommodation for her staff. This has also promoted 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 contributed 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. The county should 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.
- ii. There is need for public health awareness programmes on existing cultural practices and religious elements that are retrogressive and impede on child health care. The challenge of cross-border relations that require control measures across the border due to the mobile nature of the community and the porous Somalia border need mitigation measures.
- iii. 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. To make this more effective, the County should engage Community Health Volunteers (CHVs) and equip them with the relevant resources and skills.
- iv. More sensitization about negative effects of FGM and Early marriages need to be carried-out by the county government in collaboration with national government and other change agents.
- v. The county should revamp, expand, modernize and equip primary health facilities, in the County.
- vi. Recruit additional public health officers and Community health workers to strengthen preventive and primary health systems.
- 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, workplaces and health care facilities within the county.
- ix. The county should consistently allocate resources towards nutrition specific and sensitive programmes in the various sectors by establishing specific budget lines for nutrition support initiatives.
- x. Train more health officers on COVID-19 management. This will reduce the risk of infection even among medical officers and patients.

10. Education and Training

10.1 Characteristics of the Sector

General Education Provision in the County

Mandera County has a total of 259 public pre-primary centres, 259 public primary and 46 public secondary schools. Infrastructures are in place to support water and sanitation efforts in learning institutions by the county. The county has rolled out plans to provide hand washing facilities in schools in preparation for re-opening. The County has 259 public primary schools with a total enrolment of 183,560 pupils of which 115,422 are boys and the remaining 68,138 girls.

There are 46 public secondary schools in the County, with Moi Girls' and Mandera Boys' secondary schools being of national status. The total enrolment is 12,259 (8,545 boys and 3,714 girls), with a total 376 teachers with a CBE 645. Even with this, there is still a shortfall of 360 teachers, thus giving a teacher, student ratio of 1:36. The secondary NER for the county stood at 5.2 per cent (7.6 per cent boys and 2.2 per cent girls) compared to the national rate of 24.0 per cent (22.2 per cent boys and 25.9 per cent girls).

The dropout rate is 6.6 per cent. The Primary Education NER for the county is 42.4 per cent (64.4 per cent boys and 35.5 per cent girls) compared to the national rate of 77.2 per cent (76.2 per cent males and 78.3 per cent females). There are 30 mobile schools, eight in Mandera East, seven in Lafey, two in Mandera West, eight in Banisa and five in Mandera North constituencies. Further, there are 27 low-cost boarding schools, fully funded by the national Government. On the onset of the devolution, the Department of Education conducted its first forum for education stakeholders. This benchmarked transformation in the sector in terms of performance in KCPE and KCSE, which has improved from ground zero to a performing County. This was achieved through the efforts of the County Government, which enabled conducting of end term mocks for primary and secondary schools, quality assurance assessment and motivational speeches by mentors.

The county has institution such as madrasa that teach Islamic religious studies and jurisprudence.

The County has seven operational vocational training centres namely Mandera, Fino, Elwak, Rhamu, Takaba Rhamu Dimtu and Banisa. The centres provide technical courses, including dressmaking and tailoring, motor vehicle mechanic, welding and fabrication, building technology, electrical installation, hairdressing and beauty therapy, ICT and carpentry.

There are tertiary training institutions in the county, including Mandera Teachers Training College, Mandera Technical Training Institute and Mandera ECDE Training Centre. The Department of Vocational Education and Training is planning to operationalise the other two VTC. There are three private colleges namely Maarifa College (which offers different courses,

such as computer packages, secretarial, and business studies), Frontier Training Institute and Border Point Teachers College. The County has not a single public university, and the Mandera County leadership is out to ensure that there is one soon. About 81.8 per cent of public primary schools in Mandera 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 33.4 per cent while that of primary school and secondary school was 78.8 and 56.7 per cent respectively in 2015/16 (Table 10.1). Gross Attendance Ratio (GAR) represents the total number of persons attending school regardless of their age, expressed as a percentage of the official school age population for a specific level of education. The GAR for pre-primary school was higher for female, 35.6 per cent, compared to that for males, 31.4 per cent. The GAR for primary school was higher for males, 88.4 per cent, compared to that for females, 69.1 per cent. The GAR for secondary school was higher for males, 69.3 per cent, compared to that for females, 37.4 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 10.5 per cent, 58.2 per cent and 25.9 per cent, respectively.

Table 10.1: Gross attendance ratio and Net attendance ratio by educational level in Mandera County

Education Level	Gender	Gross Attendance Ratio	Net Attendance Ratio
Pre-Primary School	Male	31.4	12.0
	Female	35.6	8.5
	Total	33.4	10.5
Primary School	Male	88.4	62.0
	Female	69.1	54.5
	Total	78.8	58.2
Secondary School	Male	69.3	31.8
	Female	37.4	17.0
	Total	56.7	25.9

Source: KIHBS 2015/16

Basic education gross and net enrolment rate

The pre-primary gross enrolment rate in the county was 33.4 per cent in 2018 and while the net enrolment rate was 10.5 per cent (table 10.2). The Gross Primary and Secondary enrolment rates stood at 79.8 per cent and 56.7 per cent respectively in 2018 while the Net enrolment rates (NER) were 58.2 per cent and 25.9 per cent for primary school and secondary school respectively during the same period. The huge difference between primary and secondary school enrolment is due to primary to secondary school dropouts.

Table 10.2: Gross and net enrolment rate (%), 2018

Preprimary	Total
Gross Enrollment rate (GER)(%)	33.4
Net Enrollment rate (NER)(%)	10.5
Gender parity index	.5
Primary	
Gross Enrollment rate (GER)(%)	78.8
Net Enrollment rate (NER)(%)	58.2
Gender parity index	.6
Secondary	
Gross Enrollment rate (GER)(%)	56.7
Net Enrollment rate (NER)(%)	25.9
Gender parity index	0.4

Source: Education statistical booklets 2014-2018

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 47 per cent with the male population being more literate (62.6%) compared to their female counterparts (29.2%).

The county has 260 trained and 260 untrained ECDE teachers. This is magnificent achievement since the County had only 4 ECDE teachers employed by the former Mandera County Council before devolution. There are a total 1,079 teachers serving the primary schools, with a shortfall of 910. The teacher, pupil ratio is 1:91.

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	47
	Illiterate	52
	Not Stated	1
	Number of Individuals ('000)	324
Male	Literate	62.6
	Illiterate	36.8
	Not Stated	0.7
	Number of Individuals ('000)	172
Female	Literate	29.2
	Illiterate	69.3
	Not Stated	1.5
	Number of Individuals ('000)	151

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 61.3 per cent of the population do not have any educational qualification. This is high than the national percentage of 49.7 per cent. Only 1 per cent of the population has attained university degree. The proportion of the population with CPE/KCPE qualification is 17.4 per cent and that of KCE/ KCSE qualification is 8.1 per cent.

Table 10.4: Percentage distribution of population by highest educational qualification

Highest Educational Qualification	Percentage Distribution of Population
None	61.3
CPE/ KCPE	17.4
KAPE	0
KJSE	0.1
KCE/ KCSE	8.1
KACE/ EAACE	0
Certificate	0.4
Diploma	0.9
Degree	1
Basic/post literacy certificate	0.1
Other	0.3
Not Stated	10.4
Number of individuals ('000)	310

Source: KIHBS 2015/16

Percentage distribution of Mandera County residents aged 3 years and above who had ever attended school by the highest level reached, and sex is presented in table 10.5. The proportion of males who had reached primary school level was 56.2 per cent while that of females was 12.1 per cent. for all persons who reported to have attended school, 9.8 per cent of males and 12.1 per cent females had reached pre-primary school level in the County. There was a high disparity between the proportion of persons who had reached university education level, with male recording a higher percentage than female at 2.1 per cent and 1.1 per cent, respectively.

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

Educational Level	Gender	Percentage Distribution of Population 3 Years and above
Pre-primary	Male	9.8
	Female	12.1
Primary	Male	56.2
	Female	59.6
Post primary vocational	Male	0
	Female	0
Secondary	Male	20.7
	Female	10.5
College (Middle-level)	Male	1
	Female	1.1
University	Male	2.1
	Female	1.1
Madrasa / Duksi	Male	1.9
	Female	2
Other	Male	0.3
	Female	0
Not Stated	Male	8.1
	Female	13.4
Number of Individuals ('000)	Male	189
	Female	121

Source: KIHBS 2015/16

The Early Childhood and Development Education is one of the functions fully devolved, as provided under Schedule 4 of the Constitution, 2010. The County Government has invested in the ECDE sector, which has 259 public ECDE centres with an enrolment of 34,341 children, of which 19,066 are boys and 15,275 are girls as of 2017. To fully develop psycho-motor skills of the minors we plan to gradually equip all the ECDE centres with the relevant training and playing tools such as see-saws, balls, sandpits, swings etc. This will help improve the children's social skills, integration ability, cognitive and motor development. The county has already established an ECDE college, which has commenced training ECDE teachers. The investment in the ECDE sector has greatly improved both ECDE and primary school enrollment. With

ECDE as the intermediary, the primary school enrolment has increased by 100 per cent, from 96,099 to 183,560.

The investment in the vocational training has increased the employment rate. A good number of youths with technical skills are released into the market every year.

The County Government has procured three school buses for Moi Girls, Sheikh Ali and Elwak Secondary Schools. The county will also provide a bus for each of the three remaining sub-counties. Students will also be sponsored to teaching colleges, as locals do not pursue teaching profession. This will reduce the number of teachers needed in the county. The County Government has so far spent over kshs.150M in bursaries towards needy students in secondary schools.

The county will employ 150 adult education teachers and construct classrooms and boarding wings for the adult centres as they need classes for both primary and secondary level. The county will use ECDE classrooms in the afternoon sessions for adult education training. The county mission is to eradicate illiteracy and promote life-long learning among adults and youth who are just out of school to enable them to make informed decisions and become self-reliant.

The county plans to develop institutional capacity of the youth polytechnics to offer relevant youth with appropriate and adequate skills, knowledge and attitudes to realize their potential for individual and county development. This will improve the quality of training and teaching to match national and county needs through the implantation of youth resource centres in the county.

On the impact of COVID-19, education sector in Mandera was also affected with children back at home. However, in the preparation to school re-opening, the county has plans in place to ensure social distancing in the classes are adhered to. The looming challenge would be in the construction of classes to prevent overcrowding and enhance social distancing. Plans to acquire cheap materials to constrict the classes are in place. There is no major issue in the TVETS and polytechnics. There is a budget to support the polytechnics to employ more youths and give people money inform of loans to help them revive their businesses.

The closing down of schools worsened the existing problems in the education sector as the Cases of Female Genital Mutilation had increased tremendously, including child marriages, defilement and domestic violence. In collaboration, the county government together with the Anti-FGM Board had beefed community vigilance. Poverty is a key hindrance to the education sector and mostly to youths. Many cannot afford to pay school fee. In addition, drug and substance abuse has greatly contributed to absenteeism hence affecting the education standards. Peer pressure is another factor leading to early marriages and school dropouts. All these factors lead to poor transition from primary to secondary school. To address the challenges, government needs to enforce free and compulsory secondary education. Recruitment in the terror is another challenge facing youths.

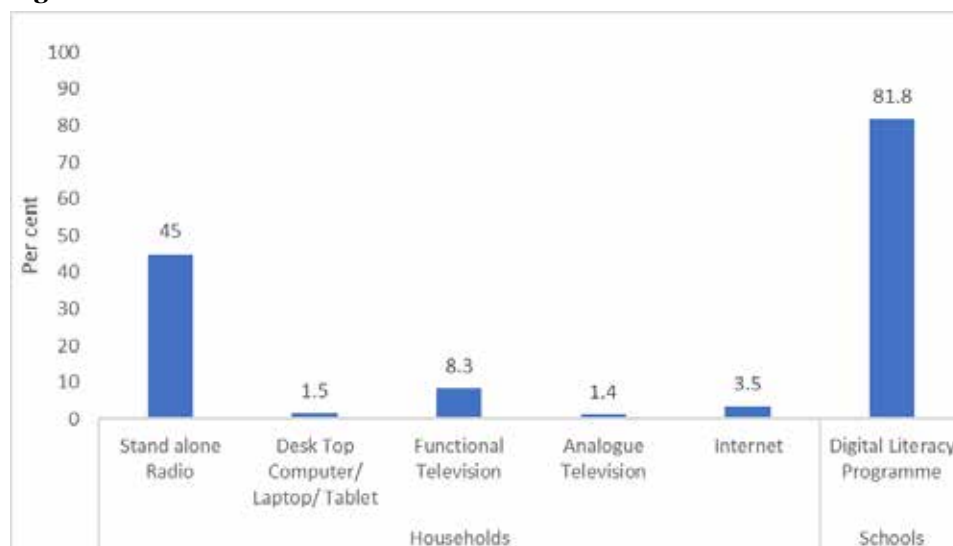
There are several constraints in the education sector. The main one right now is COVID-19 which has led to closing of schools. This has disrupted education calendar posing a great challenge to both county and national government. The national government announced that the education calendar 2020 a waste. Closure of all schools has led to loss to learning time and teaching time. The school infrastructure in the County is not only limited but also is of poor quality. High illiteracy level is another issue of concern as not all county persons can read and

write. Lack of parental guidance and early marriages are other challenges being experienced. There is also lack of enough ICT infrastructure in the county making it difficult for the online learning to take place.

ICT in education

The county has also low internet access (3.5%) which constrains online learning across the County. Furthermore, only 1.5 percent 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 45 per cent of the county population has a radio.

Figure 10.1: Access to ICT in households and schools



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

Agriculture provides food for the school going children. Therefore, it plays a key role in ensuring that the school going children get food of the required quality and quantity. It is always children who are in the right health status who 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 when schools reopen; 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. There is the issue of low ICT development in the county.

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 when schools reopen; 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 need to come in and support private institutions which are facing threat of closure due to losses as a result of closing school indefinitely. This can involve giving grants and loans to the private schools.

11. Social Protection

11.1 Characteristics of the sector

According to the KNBS census 2019, Mandera county has a population of 867,457 of which 1.5 per cent are the elderly and 0.9 per cent are people living with disabilities. The overall poverty rates in the county stand at 92 per cent which is more than double the national average of 36.1 per cent. The county's food poverty levels are at 78 per cent and 63 per cent of the total population is multi-dimensionally poor. Further, about 32 per cent of the children population is stunted. The impact of the COVID-19 to the county's economy cannot be gainsaid.

The number of orphanages is estimated at 11. Out of these, some are supported by the National Government, non-governmental organizations such as Islamic relief, Africa Muslim Agency and Mandera County Government. There is need to increase the coverage of more OVCs because many households have been left out. No survey has been conducted to ascertain the exact number of street children in major towns of Mandera County. There are several social net programmes carried out in the county. Key among them is supporting the existing orphanages across the county by giving them grants. The county government have provided grant to the 5 orphanage centres and is in the process of developing cash transfers to the vulnerable in the count.

Severe Shocks to The Households

Severe shocks have had negative impact to the household's economic and social welfare of county residents. Table 11.1 presents the proportion of households by the first severe shock in the county. The major shock in the county was ethnic clashes which affected 30 per cent of the households followed by the dearth of livestock, Large rise in price of food and droughts or floods which affected 22.6 per cent, 12.9 per cent and 12.9 per cent of the households, respectively. Death of family Members and Loss of salaried employment or non-payment of salary were also other major shocks in the county affecting 8 percent and 2.5 per cent, 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	8.7
Crop disease or crop pests	0
Livestock died	22.6
Livestock were stolen	1.3
Household business failure, nonagricultural	0.5
Loss of salaried employment or non-payment of salary	0.3

End of regular assistance, aid, or remittances from outside the household	1.3
Large fall in sale prices for crops	0.1
Large rise in price of food	12.9
Large rise in agricultural input prices	-
Severe water shortage	5
Birth in the household	-
Death of household head	3
Death of working member of household	-
Death of other family Member	2
Break-up of the household	4
Bread winner jailed	-
Fire	1
Robbery / Burglary / Assault	3
Carjacking	-
Dwelling damaged, destroyed	0
Eviction	-
Ethnic/ Clan Clashes	30
Conflict	1
HIV/ AIDS	0
Other	19
Number of households with Shock	84,000

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, 54 percent of the households received cash transfers. A higher proportion of households received transfers from within the country (76%), mainly from individuals (81%) while external transfers constituted 17 per cent.

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

	Beneficiaries	
Total Number of Households	111,000	
Households receiving transfers (per cent)	54	
From Inside Kenya	Individual	17,529
	Non-Profit Institution	472
	National Government	6,179
	County Government	28
	Corporate Sector	528
Inside Kenya	24,736	
Outside Kenya	101	
Total	20,986	
Number of households that received transfers	60,000	

Source: KIHBS 2015/16

Mandera county has about 76 per cent of people living under poverty levels. The county undertook an assessment whereby a total of 40,000 households found to need support. The county was unable to reach all the people as such they did another further assessment and in which about 10,000 households were found to be extremely vulnerable particularly, those people who are living with HIV/AIDs, retired military people, widows and physically challenged, teachers who used to teach at madarasa who have no source of income since the religious centers have been closed. The governor set supplementary budget of about Kshs. 120 million to support these groups of people in the short term. An additional of 11,000 people who were affected with floods were also considered in this program. So far relief food has been supplied.

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. Long term measures for the county include plans to support small businesses through provision of small development funds to the Jua Kali sector. Provision of a program fund called cooperative development fund which they intend to use in supporting these businesses The County intends to strengthen the food production by providing farm inputs to the farmers, seedlings, water and hay for animals.

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 had also been 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. Potential sources for revenue were adversely affected by the floods and COVID-19. However, through lifting of up restrictions and the measures taken by the county on local business is picking up which would eventually revive the revenue stream though it might take time but there are positive signs to that effect. The county has lost revenue from livestock selling and tourism which greatly contribute to the economy. However, the situation has started improving owing the reopening of the county in July 2020.

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

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

Agriculture is the main source of revenue in the country and most of the counties. Mandera county is not an exception. Majority of people are involved in livestock keeping and farming. This provides people with source of food as well as revenue which is used to improve their welfare. Agricultural sector also creates employment among many county residents who

would otherwise have been jobless. Trade and industry plays an important role bettering life of the residents. This is where majority of people derive their livelihood from especially those engaging SMEs. The profits and savings obtained from business is used in feeding the family members and 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. In an effort to strengthen social protection response in face of a similar pandemic, the Mandera county government should:

- 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.

Mandera County has a population distribution of more male (50.1 per cent) than female (49.9per cent). The Kenya Health Information System (KHIS, 2020) reported 1,417 cases of teenage pregnancies between January and May 2020. While this is a drop from 2,018 cases compared to a similar period in 2019, there is need to ensure zero tolerance to such cases since they are associated with high rates of school dropouts, stigma, increased mental health concerns, spread of sexually transmitted diseases, postpartum depression and suicidal ideation. The May 2020 KNBS COVID-19 survey indicates that 21.9 per cent of the respondents in the County had witnessed or heard of any form of domestic violence.

To address the challenges, the County will:

- i. Prioritize elimination of gender stereotypes, transforming gender norms and revoke discriminatory practises for effective realization of the rights of women and girls.
- ii. Support enforcement of laws related to teenage pregnancies especially where adults are involved.
- iii. Community training and sensitization programmes targeting teenage boys and girls to deal with increased cases of teenage pregnancies.
- iv. Identify and train champions (individual actors) including using elders active in combating GBV and who can carry advocacy messages and contribute strongly to changing harmful and retrogressive practices.
- v. Collaboration between the county, state agencies, and other partners to strengthen capacities of various stakeholders including, political leadership within the county, women's groups, religious leaders, and community leaders to combat harmful practices that breed GBV.
- vi. Designate gender safe spaces to provide accommodation for GBV survivors.
- vii. Launch hotlines/helplines using toll-free calls and SMS numbers for gender-based violence victims. This will assist GBV victims access support and guidance to include psycho-social support, counselling and health care.

12. Human Resources

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.

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

	Male	Female	Total
Population	356,867	344,294	701,187
Working	153,988	149,296	303,296
Seeking Work/ No Work Available	56,508	37,293	93,806
Persons outside the Labour Force	146,303	157,648	303,960
Not Stated	68	57	125
<i>per cent Working</i>	<i>73.1</i>	<i>80.0</i>	<i>76.4</i>
<i>per cent Seeking Work/ No Work Available</i>	<i>26.8</i>	<i>20.0</i>	<i>23.6</i>

Source: KNBS, 2019

Distribution of population age 5 years and above by activity status, and sex in the county is shown in Table 12.1 above. An assessment on the county labour force indicates the county population aged 15-64 years (labour force) was estimated at 397,102 people of whom 303,296 people were working and 93,806 were seeking employment representing an unemployment rate of 23.6 per cent (Kenya Population and Housing Census, 2019).

A small percentage is self-employed, and they engage in milk vending, jua kali, hawking and livestock selling among others economic activities. The County Government has invested in vocational training institutes and given more incentives and subsidies to investors and entrepreneurs so that they can in turn create more job opportunities especially for the youths who makes the large portion of the unemployed.

About 648 youth have benefitted from the Kazi Mtaani initiative that was rolled out by the national government to empower the youths who were affected by the pandemic. In Mandera county, the youths from Bulla Jamhuri and Shafshafey locations were the among those were highly affected by the COVID-19 crisis.

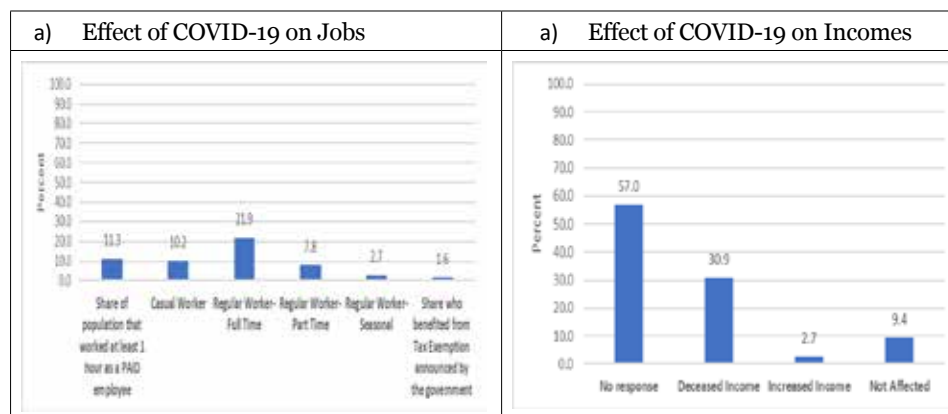
Effects of COVID-19

Mandera County was negatively affected due to COVID-19 outbreak. Several business activities were affected leading to loss of jobs and income. The county was most affected as it was among the few counties that national government implemented lock down. In addition to lockdown, other counties also closed borders such as Marsabit-Mandera border. 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.

The unemployment has increased during the period of COVID-19, according to May 2020 KNBS COVID-19 Survey, 11.3 per cent of the county labour force worked at least for 1 hour for pay; 44.1 per cent had never worked, and 44.5 per cent worked in the informal sector. However, 7.4 per cent of employees did not attend to work due to COVID-19 with other 88.3 per cent of employees working without any pay.

During the pandemic, about 10.2 per cent of workers in the county were casual workers 21.9 per cent were regular workers (full time), 7.8 per cent employees were working as part time. However, about 30.9 per cent reported decrease in income while 2.7 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 1.6 per cent of workers indicated to have benefited from government tax exemptions which indicates about 98 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.

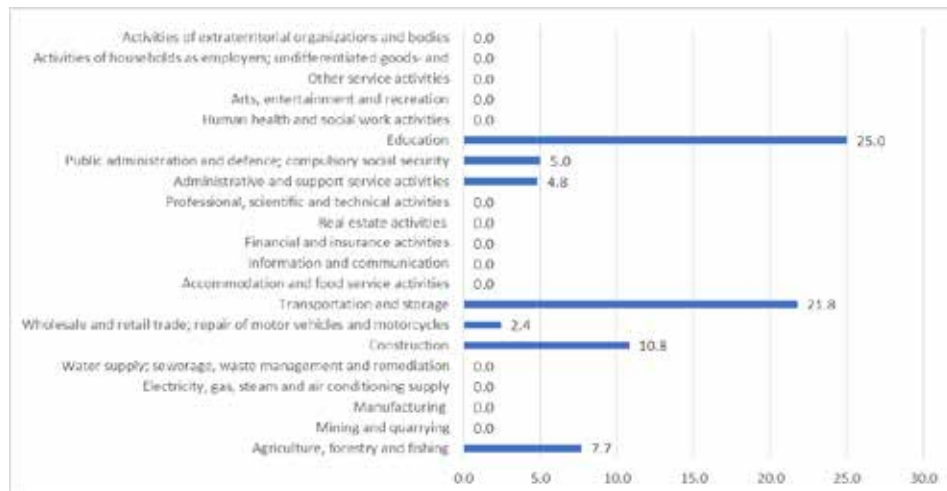
Figure 12.1: Effects of COVID-19, 2020



Source: May 2020 KNBS COVID-19 Survey

According to the May 2020 KNBS COVID-19 Survey, workers in education sector recorded the highest level of hours lost (25.0 hours) in a week followed by workers in transportation and storage who lost 21.8 hours in a week. The above indication was as a result of closure of schools and imposition of curfews to mitigate the spread of the virus. Other service sectors like wholesale and retail trade, construction and administrative and support service activities lost 2.4 hours per week, 10.8 hours per week and 4.8 hours per week, respectively. Workers in agriculture sector which is mainly dominated by small scale crop production and bee keeping lost 7.7 hours in a week.

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



Source: May 2020 KNBS COVID-19 Survey

Further, 31.0 per cent of workers in Mandera county recorded decreased income; 3.0 per cent reported increase in income, while 78.1 per cent recorded working as unpaid workers. The county recorded 44.1 per cent of workers in informal sector and 7.4 per cent never attended to work due to COVID-19 related activities. 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. On average, county lost 3.3 hours worked in a week.

12.2 Opportunities with COVID-19 in human resource sector

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 digitalisation processes in the work environment. The county government need to immediately use digital platforms to enable remote access to jobs for their employees where the Human Resource Management will have an essential role to play in navigation of the situation caused by the pandemic.

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

12.3 Emerging issues

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. Promote investment and entrepreneurship through provision of loans, the county Government will improve access to finance for small and medium enterprises through lending institutions. In addition, build capacity in areas related to marketing, operations, finance and human resource development to enhance the chances of survival of the SMEs.
- ii. Build workplace resilience to public health emergencies and outbreaks of infectious diseases in all Mandera County economic sectors.
- iii. Enhance universal health access through investment in Community and public health including community health workers, water, sanitation, immunization, enhancing social health insurance and public health.
- iv. Promote implementation of stronger labour market interventions and policy reforms that drive employment creation within the key sectors of agriculture (pastoralism) in the County.

- v. Improve the health insurance and assistance system for disastrous diseases. In the event of emergencies health insurance agencies should allocate part of the health insurance fund in advance to ensure that hospitals provide treatment before charging fees.
- vi. The county will strengthen preventative and promotive health services through malaria control; expanded programmes on immunization; integrated management of childhood illness; and control and prevention of environmentally communicable diseases.
- vii. Provide enough water collection points and water use facilities in the health facilities to allow convenient access to, and use of, water for medical activities, drinking, personal hygiene, food preparation, laundry and cleaning.

13. Conclusion and Recommendations

13.1 Conclusion

Fiscal policy, planning and budgeting

The county total revenue has significantly grown over the years as the Government focus on enhanced services and amenities for its residents. Analysis of the sources of revenue indicate that equitable share has been the main source of county funding accounting for more than 70 per cent of the total revenues. Monthly cash transfers from the National Government have always had an increasing trend from January to June over the years. Conditional grants are also a major source of revenue for financing county operations and has been growing over the years.

Agriculture, Livestock and Fisheries

The Agri-food analysis highlights the sector was negatively affected by COVID-19 in terms of labour supply, trade and marketing operations, food supply and the resulting effects on food prices. At the peak of the COVI-19 pandemic period, the County also suffered from desert locusts, floods, and livestock diseases. The County's agricultural productivity is also affected by: - variable and extreme weather events Poor and inadequate infrastructure; water scarcity; low agro-processing and value addition opportunities; dependence on rain-fed agriculture; low access to quality and affordable inputs; low commercialization levels and marketing opportunities; low access to major off-farm services including extension, climate and market information, and credit services; pests and livestock diseases; and farm losses and post-harvest waste. 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 water from vendors, as well as surface water, as well as water from dug well, leading to low access to improved sources of water. Access to piped water remains low. 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

Mandera County's Manufacturing, Trade and MSMEs momentum was disrupted by the COVID-19 pandemic as the containment measures associated with COVID-19 pandemic took a heavy toll on the sector. In sustaining growth and building resilience in this sector, it is important to strengthen trade and 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 PSV matatus followed by motorbike. The paved County Road network covers 19.67km, while the paved National roads cover 67.32km. Out of the total paved road network of 86.99km, 53.18 per cent is in good condition, 6.44 per cent in fair condition and 12.15 per cent in poor condition. The status of ICT access and use in the county is low, especially among households. The high cost of internet services and equipment and the lack of knowledge and skills on internet are the leading reasons that the people of in the County do not have internet connection. The housing tenure is predominantly owner occupied at 92.4 per cent, with 7.6 per cent of the households under rental tenure. In terms of housing quality (building material), 18.67 per cent of houses are constructed using finished materials for walls, floor and roofing compared to 81.33 per cent constructed using rudimentary materials.

Tourism

Mandera County is a hilly landscape whose key tourist attraction are wildlife and Malkamari Game Reserve. The county does not have classified hotels. There are medium-class hotels in major towns and smaller hotels and restaurants distributed across Mandera Town. The County Government plans to construct a model 4-star hotel. Accommodation and food services account for 0.3 per cent of total GCP. Some opportunities in the sector include improving sanitation aspects in tourism attraction sites, refurbishment of accommodation facilities, promoting domestic tourism.

Health

Under the health sector, there is need for more awareness on immunization so that mothers can ensure their children get immunized. Implement a comprehensive human resource health management system including undertaking training needs assessments and information system to ensure skilled and motivated health care workers, equitable deployed across all sub-counties. This is in addition to paying the salaries in time to avoid cases of strikes and low staff morale. Recruit additional of public health officers and community health workers to strengthen preventive and public health systems. COVID-19 has worsened the situation as far as youths and women are concerned. These are the groups of people that have been facing several challenges even before the outbreak of the COVID-19. FGM and Gender based violence cases have increased with the lock down. Youths who are entrepreneurs have also been affected losing jobs and businesses due to the lockdown. Other problems facing youths includes teenage pregnancies, malnutrition, STI/HIV and Aids, poor environment, drug and substance abuse and malnutrition

Education and training

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

Social protection

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

Human resource

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

13.2 Key Recommendations

Fiscal policy, planning and budgeting

To ensure continued recovery, the county must now move quickly to 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.

Agriculture, Livestock and Fisheries

To successfully build resilience and enhance growth of the agriculture sector, the County will: explore partnerships to develop agro-processing and value addition capacities at the County; expansion of water harvesting projects and sustainable irrigation; scale up conservation agriculture, post-harvest management, plant and keep drought-tolerant crops and livestock breeds; link farmers to diverse product markets; strengthen the County's institutional capacity in disaster surveillance and management; enhance farmers access to critical agricultural inputs and services and build their technical capacity to act on information obtained; provision of storage and cooling facilities; natural resource management; and strengthen agricultural cooperatives to enhance marketing.

Water sanitation and hygiene

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

Manufacturing, Trade and MSMEs

In sustaining growth in the Manufacturing, Trade and MSMEs sector, the County will: Establish an emergency rescue package for businesses and traders hard-hit by the effects of COVID-19 in the short term. 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; COVID-19 has increased demand for locally produced goods in the County, and especially Personal Protective Equipment (PPEs), sanitizers, hospital beds and ventilators. It is an opportunity to spur innovation and promote manufacturing and industry development and 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; Support and participate in the implementation of Northern Eastern Corridor Transport Improvement Project (NETIP) to spur industrial growth as planned in MTP III; Participate in rolling out Livestock Insurance Programme for ASAL areas as per Vision 2030 aspirations; Fasttrack negotiation of tax subsidies with the national government to attract major industries in the County; Support establishment of cottage and light industries for value addition; Explore opportunities in the natural resources exploitation such as minerals, gums and resins, and livestock-processing industries in the County; Fast-track establishment of appropriate legal frameworks and incentives such as land, tax rebates to attract investors; Fast-track establishment of Leather industries at Takaba town; and Partner with the national government to link the County to the national grid in order to lower the cost of energy.

Infrastructure, housing and urban development

In addressing the prevailing challenges, the county will Identify county significant infrastructure projects for implementation under a stimulus programme to support economic recovery from the effects of the pandemic; 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 25.3 per cent to 100 per cent in line with the global agenda for Universal Access to Mobile Telephony; and availing appropriate building technology for use by the public in house construction and improvement in every sub-county, that responds to local cultural and environmental circumstances.

Tourism

To improve the sector the county government will map all the sites with tourism potential in the county; coming up with a tourism sector development master plan; protecting cultural heritage sites; Tourism product diversification and marketing; niche products such as annual cultural festivals, and animal sanctuaries / wildlife reserves, set up a cultural documentation centre and tourism information centre and ensure high sanitation standard in the hotel facilities to deter spread of COVID-19 in line with the national guidelines for reopening of the hospitality sector.

Health

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

Education and training

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

Social Protection

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

Human resources

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

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