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# Nawiri



## **PARTICIPATORY LABOR MARKET SYSTEMS ASSESSMENT IN SAMBURU AND TURKANA COUNTIES**

**DECEMBER 2021**



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TURKANA COUNTIES

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## LIST OF ACRONYMS

ANOVA	Analysis of Variance
BDS	Business Development Services
CAPI	Computer Assisted Personal Interview
CIDP	County Integrated Development Plan
CLMS	County Livestock Marketing Council
COD	Cost of Diet
CRA	Commission on Revenue Allocation
FAO	Food and Agriculture Organization
FBOs	Faith Based Organizations
FGDs	Focus Group Discussions
FGM	Female Genital Mutilation
GCP	Gross County Product
HHDS	Household Income and Household Dietary Diversity
HEA	Household Economic Analysis
ICT	Information Commutation Technology
KAP	Kerio Riverine Agro-Pastoral Livelihood Zone
KCPE	Kenya Certificate of Primary Education
KCSE	Kenya Certificate of Secondary Education
KIIs	Key Informant Interview
KISDEP	Kalobeyei Integrated Socio-Economic Development Plan
KNBS	Kenya National Bureau of Statistics
LMA	Livestock Marketing Associations
LTWP	Lake Turkana Wind Power
LUZ	Lodwar Urban Livelihood Zone
MSMEs	Medium, Small and Micro Enterprises
NDMA	National Drought Management Authority
NIB	National Irrigation Board
OSR	Own Source Revenue
SACCOs	Savings and Credit Cooperatives
SMEs	Small and Micro Enterprises
SPSS	Statistical Packages for Social Scientists
VSLAs	Village Savings and Loaning Associations
VTCs	Vocational Training Centers
WEF	Women Enterprise Fund
YEF	Youth Enterprise Fund



## EXECUTIVE SUMMARY

USAID Nawiri is a five-year program to develop evidence-informed interventions to overcome persistent acute malnutrition in Samburu and Turkana counties. A consortium led by Mercy Corps and including Save the Children, Research Triangle Institute (RTI), the BOMA Project, African Population and Health Research Center (APHRC), and Caritas Lodwar seeks to inform the design of nutrition-responsive strategies to ensure year-round food security for vulnerable households, women and children in particular.

This labor market assessment was commissioned to scan and assess the nature and trends of the labor market system and the effect of access and barriers to engagement in labor markets on nutrition outcomes. Data required to answer the study questions as per the TOR (annex 10) was collected at five levels: labor demand, sectorial analysis, labor supply, labor matching, supporting functions, and supporting environment. There are critical sectors engaged in providing consistent employment in the two counties, with potential for growth, including livestock rearing, agriculture and the service economy.

A value chain approach was applied to assess opportunities and constraints in each prioritized sector and to identify entry points for labor market interventions. Context-specific sampling was used to identify potential livelihood sectors and key economic activities.

## KEY FINDINGS

### **Future trends in employment creation**


The youthful nature of the population demographics in both counties mean that current burdens constraining access to development services including health, education and water look set to continue. The limited resource environment means that resources to provide such services will remain scarce, limiting the counties' ability to grow and for its populations to achieve both Kenya's national objectives under the Vision2030 initiative and to contribute meaningful progress toward the Sustainable Development agenda.

Population growth is also exploding in the urban and peri-urban environments, requiring a new approach to integrate once-nomadic pastoralists, whose livelihoods are being seriously curtailed by climate change.

### **Labor demand**

Turkana county relies primarily on agriculture, which in this instance incorporates livestock husbandry, crop production and fisheries. Other engines of the county's economy include transport and storage. Construction, and education services. Samburu county, equally, relies on agriculture, with trade and transport also contributing.

Climate change and the privatization of land ownership has reduced the role that livestock rearing plays at the economic level, while remaining emblematic of the region's identity. This is



contributing to vulnerability because of the lack of public infrastructure availed to these remote and isolated counties, as there have been few investments in substitute livelihoods for these chronically vulnerable populations. Labor market interventions must consider existing physical and social assets to develop a new economic anchor, while exploring investments that also improve the overall human and social capital of the region.

### **Implication of labor dynamics for nutrition**

Higher monthly income at household level is correlated to greater exposure to diverse and nutritious foods. Skill levels are correlated to earnings, meaning that unskilled wage earners are most vulnerable to chronic food shortages and thus risk of malnutrition.

Self-employed people were more likely to be nutritionally secure, with more diverse diets, and a slightly higher number of meals in a day than wage-employed people. Pastoralists were the least likely to earn wages and eat diverse foods – exposing them and their households to a higher risk of malnutrition.

## **CONCLUSIONS AND RECOMMENDATIONS**

- The largest sectors – agriculture, livestock rearing, transport and construction – continue to provide the greatest opportunities for growth and job creation. Other artisanal industries including crafts, beekeeping and poultry farming, could also hold potential with significant investment both in training and in reaching industrial scale.
- Further education and vocational training are necessary to improve exposure to higher-paying jobs for the large population of youth.
- Agro-pastoralist zones need interventions that promote the concept of farming as a business, supporting the farming systems with effective services and inputs. In livestock, interventions should aim at stimulating new production systems.
- The absence of child care remains the single largest barrier to paid employment for women in the region. Developing a corollary industry in providing accessible, quality child care would both meet the need among working mothers as well as create jobs for women.

### **Skills Development**

- Low levels of literacy and numeracy in the region are increasingly being met outside of formal education. For improved access to paid employment for women, VTCs might consider applying a literacy test rather than requiring a school leaving certificate.
- Debunking myths around what is women’s work vs men’s work will go a long way toward improving opportunities for all in paid employment.
- Sustainable models for financing training should be considered, with incentives and encouragement provided to the private sector as businesses explore growth strategies.
- Training programs must incorporate mechanisms to support self-employment.



## Access to BDS and other Support Services

- Access to finance will come first through existing savings and loan schemes, with the aim of building social capital, developing a savings culture, and accumulating equity to use in future financing from government affirmative funds and SACCOs.
- To facilitate market access, producers need support to organize themselves to aggregate effectively. In crops value chains, the project should help develop local aggregators to buy from the community and supply to other markets.
- With no established BDS providers accessible to target group, USAID Nawiri needs to pilot a sustainable BDS delivery model to serve their MSMEs and businesses.
- Business associations need training in financial management, leadership, business skills and strategic business planning. Strengthened associations across sectors could:
  - Form partnerships to provide trainings by government, NGOs and private sector
  - Facilitating compliance, quality control and ensuring ethical businesses
  - Support security management, conflict resolution, peace keeping
  - Maintenance of infrastructure (beaches, livestock markets, irrigation, market etc.)
  - Providing enabling environment for other actors to participate in their businesses which will translate into vibrant businesses for their members
  - Linkages to inputs and output markets
  - Lobbying for favorable business environment

## 1. INTRODUCTION AND BACKGROUND

### ABOUT THE ASSIGNMENT

This study aimed to scan and analyze labor market trends to determine how access to paid labor influences nutrition or malnutrition. Study results will inform the design of labor market strategies to enable poor households to maintain year-round nutrition security for women and children.

Better understanding of existing and potential economic opportunities – and the barriers to access to these opportunities that include skills, literacy, gender norms and training – were explored.

Specific objectives included:

1. To determine how labor market dynamics affect nutrition outcomes.
2. To understand how different farm and non-farm employment opportunities contribute to stabilizing household nutrition year-round.
3. To determine key economic sectors that currently absorb labor and that are likely to create more jobs in the future.
4. To determine the current demand for specific skills and the market opportunities for both self-employment and wage employment for men and women in the formal and informal sectors.
5. To assess the profiles and preferences of workers, their skill levels, their attitudes towards employment, and skills gaps in relation to job market requirements.
6. To map existing labor market institutions, including training service providers in target growth sectors, and to assess the relevance of available skills training.
7. To understand the roles of informal and cultural norms in shaping the labor market.
8. To determine the supporting services or functions that help find decent work.

See Annex 10 for the full Terms of reference for the assignment


### OVERVIEW OF TURKANA COUNTY

Turkana, Kenya's second-largest county by size, is primarily rural, with a population growth rate of 3.35%. The 2019 census estimated a working population of 484,916 (52%) and a dependency ratio of 91%, meaning that each working person supports a large household that requires access to health, education and water without contributing to public funding for supply of those critical needs. This has severely constrained growth and development in the county, making it the country's poorest.

An estimated 79% of the population lives below the poverty line in Turkana. Pastoralism and animal husbandry at the subsistence level is the primary driver of the economy. Women, who are more traditionally linked to small-scale manufacturing and petty trade, and youth who do not

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have access to livestock assets, aspire to alternatives to pastoralism, including irrigated agriculture, charcoal production and sale, manufacture and sale of handicrafts (especially baskets), petty trade (especially of household goods and small livestock), honey production, the sale of other nature-based products, and casual labor (Save the Children, 2016).

Climate change has wrought devastating impacts on the ability of Turkana County households to maintain their traditional pastoral way of life. The severity and frequency of droughts in the recent past (climate change induced) have destroyed herds, leaving many poor households without their animals and without alternative ways to maintain a living. The low level of education means high illiteracy and innumeracy, further constraining their options for gainful employment.

These challenges belie the abundance of potential wealth in Turkana, much of it derived from energy production. The Kengen Turkwel Hydro Power Plant, situated in the southwest of Turkana, produces 106MW of hydroelectric power for the national power grid. Oil exploration has been ongoing since 2012 in the Lokichar basin. According to the County CIDP (2018-2022), the South Lokichar area is estimated to have 750 million barrels of recoverable oil with further testing by Tullow Oil expecting to increase the figure to over a billion barrels. There is additional potential for alternative and renewable energy production, including geothermal, solar and wind power. Ensuring that the people of the county are able to benefit from this potential largesse is a core consideration at the county government level, amid weak infrastructure, systems and an absence of political coordination that benefits the many rather than the few.

## **NUTRITION AND FOOD SECURITY**

Turkana county's rate of Global Acute Malnutrition in 2019 was 25.6%: well above the 15% threshold that the World Health Organization considers an emergency.

Children under age five across the county are critically vulnerable to acute malnutrition (IPC AMN, February 2020). One in five children are stunted while one in every four children are wasted (SMART Survey, 2019). Currently only one in five children in Turkana meet the minimum acceptable diet (MAD) indicator. That measure is based on adequate frequency of meals, and a diversity of meals that includes all four food groups.

## OVERVIEW OF SAMBURU COUNTY

Samburu County has a population of 310,327, with a population density of 14.73/km<sup>2</sup>. The population is 85% rural (KNBS, 2019). During the dry season, many people in rural areas concentrate around permanent water sources. The county's population growth rate was 2.1% (census 2019). The working age population was 149,054 (48%), with a dependency ratio of 108%.

Samburu county ranks among the country's poorest, with a poverty rate of 71.4% (KNBS, 2019). Pastoral livestock rearing is the main economic activity and source of livelihood – which, as elsewhere in the arid and semi-arid lands is increasingly compromised by climate change. Recurrent drought has destroyed herds and compromised the ability of already vulnerable households to maintain pastoralist lifestyles. Sprawling informal settlements have characterized the explosive growth of urban and peri-urban environments, taxing the already stretched public infrastructure in these areas. Livelihood opportunities in these so-called communities in transition (Samburu County CIDP, 2018-2022) include masonry, jua kali artistry and crop farming.

There is, however, potential for economic growth linked to already explored sectors, primarily crop production and irrigated agriculture. There are 17 sites that have been identified to have high irrigation potential in Samburu East and North; numerous mountain springs covering Nyiro division; and emergent irrigation schemes in Kurungu, Arsim and Lulu. Current land management practices including subdivision could favor investments in crop farming, while also further curbing livestock migration. Exploitation of the county's other natural resources could be favorable for economic growth and maturation of labor markets, including wildlife-based tourism.

## FOOD SECURITY AND NUTRITION

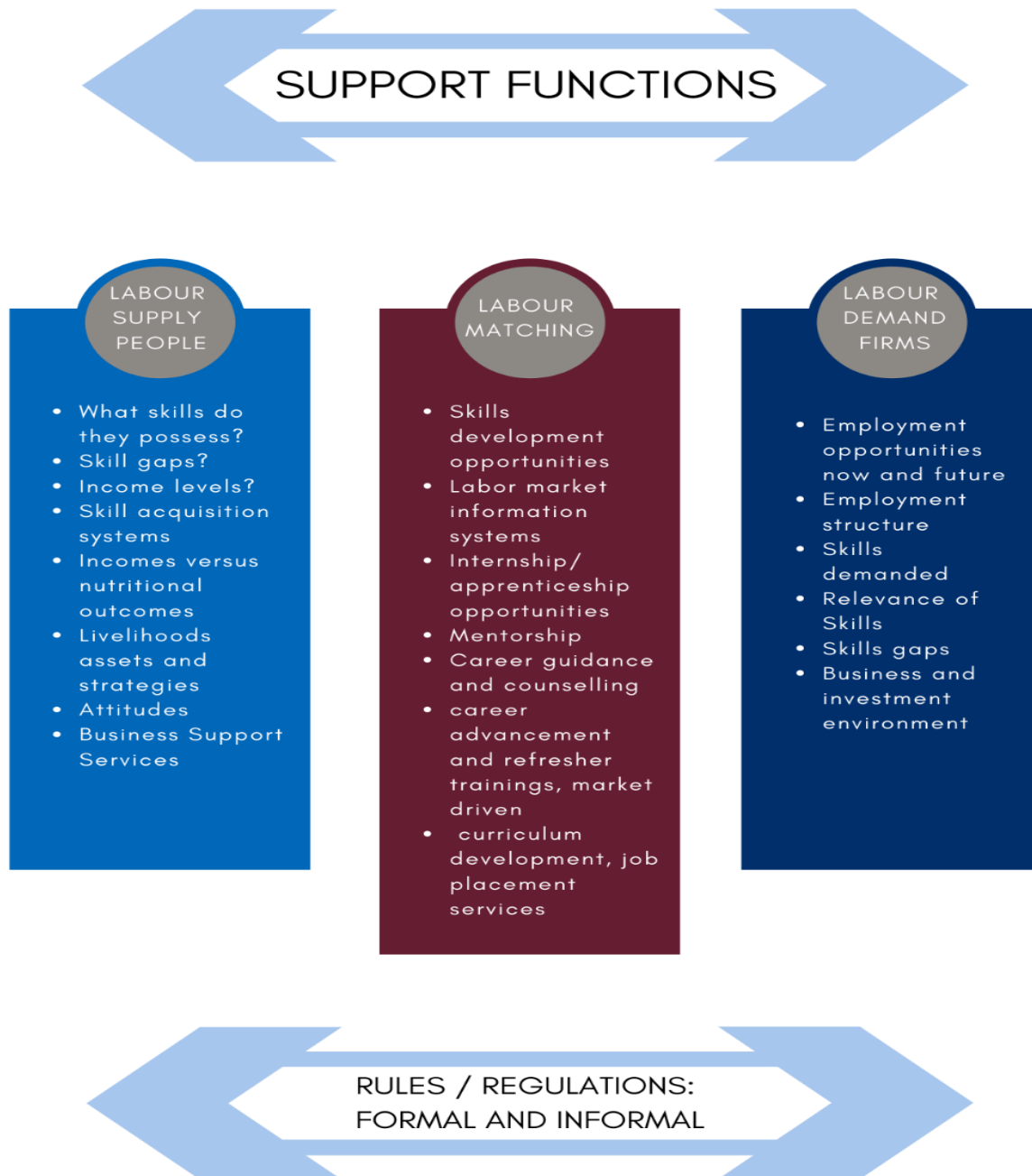
The GAM rate in Samburu County is at 15.8% (Samburu SMART Survey, 2019), the Severe Acute Malnutrition (SAM) for the children under five runs at 2.4%. The Samburu food security score is at 69% for the acceptable food consumption score (FCS), with nearly 20% considered borderline and 11% poor. (SMART Survey, June 2019).

## 2. APPROACH AND METHODOLOGY

### APPROACH TO DATA COLLECTION

#### Data Collection Framework

Data was collected at five levels: labor demand targeting the employment providers, labor supply among the USAID Nawiri target group, labor matching, supporting functions, and the operating environment. Figure 1 depicts the data collection levels.



**Fig 1: Data Collection Framework**

- 1) **Labor supply:** Extent to which youth and women provide both wage and self-employed labor to selected sectors.
- 2) **Labor demand, employing firms:** Targeted firms and institutions able to provide employment to large numbers of target groups within priority sectors. Business associations in different sectors were also assessed.
- 3) **Labor matching, institutional support:** Focus on institutions and agencies mediating between labor supply and demand to reveal existing opportunities and gaps. Labor matching information was primarily collected through a tracer survey of VTC graduates and scoping studies. Institutions in the scoping studies were:
  - Samburu:** Maran Driving School, Samburu Technical and Vocational College, and Maralal Technical and Vocational College
  - Turkana:** Mercy Centre, Swisscontact, Lokori Vocational Training Centre, Lodwar Vocational Training College, Maralal Vocational Training Centre's Tuum Garage, Turkana East TVET, Don Bosco and Learning Lions, and Furrows in the Desert
- 4) **Support functions:** Assessment of access to services essential to business and employee performance
- 5) **Enabling environment:** Assessment of the broader operating environment, including social, economic, institutional, regulatory and cultural issues

### **Approaches to Sampling and Data Collection**

A value chain approach was applied to assess opportunities and constraints in each prioritized sector. Data collected at each node of the value chain included: current sector performance, participation of the target group, skills requirements, skills gaps, and bottlenecks to employment creation.

The assessment further used context-specific sampling based on livelihood zones delineated as per the USAID Nawiri Household Economic Analysis (HEA) (Annex 1). Further sampling considered the main economic activities within the livelihood zone (Annex 2).

### **Data Collection Methodology**

The study applied a mixed-methods approach.

#### **Secondary Data**

A review of secondary data informed the design of the primary data collection phase, while also providing some preliminary answers to the research questions. Social and economic studies, demographics, livelihood strategies, labor dynamics, private sector development, as well as the

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legal and policy environments were reviewed for insight into economic drivers and employment trends. Key stakeholders were mapped.

### Stakeholders’ workshop

A one-day workshop was conducted in each county before primary data collection, bringing together representatives of the public and private sectors to provide contextual knowledge about drivers and constraints of social economic growth; the sectors driving the economy; and the sectors most likely to employ youth and women. Identification of potential job creating industries was also done.

Table 1 presents the priority sectors for each livelihood zone, by county.

Priority Sectors in Samburu County	Priority Sectors in Turkana County
<ol style="list-style-type: none"> <li>1. Agriculture – Livestock in all zones</li> <li>2. Agriculture – Crops in agro-pastoralism zone</li> <li>3. Tourism – eastern pastoral zone</li> <li>4. Construction – all urban zones, mainly Maralal</li> <li>5. Jua kali/informal sector– All urban zones, mainly Maralal</li> <li>6. Transport – motorbikes – All zones</li> </ol>	<ol style="list-style-type: none"> <li>1. Agriculture – Livestock in all zones</li> <li>2. Agriculture – Crops in Turkwel and Kerio Valley riverine zones</li> <li>3. Agriculture – Fisheries zone</li> <li>4. Construction – all urban zones, mainly Lodwar and Kakuma</li> <li>5. Jua Kali/informal sector – All urban zones, mainly Lodwar and Kakuma</li> <li>6. Transport – Motorbikes -- All zones</li> </ol>

**Table 1: Priority sectors in Samburu and Turkana counties**

### Primary Data

Primary quantitative and qualitative data collection applied a participatory approach. Qualitative data were gathered through focus group discussions and key informant interviews, while quantitative data were collected through a labor supply/demand survey and a tracer survey of Vocational Training Centre (VTC) graduates. Respondents were selected based on:

- a) Profile of USAID Nawiri beneficiaries, with specific focus on young parents, nursing mothers and households with children under age five
- b) Residents from areas where livelihoods are anchored in key sectors
- c) Livelihood zones determined from secondary data and the stakeholder’s workshop. Table 2 and 3 present the distribution of respondents.

## Sample Size

The total active population of for both Samburu and Turkana Counties (Age 15 – 45 years, n = 566,544<sup>1</sup>) was used as the population from which a sample size of 660 respondents for the labor survey was generated, apportioned based on the populations per county -- 500 for Turkana and 160 for Samburu.

The higher number of livelihood zones in Turkana and presence of Kakuma refugee camp in the county masked the Lodwar township sample, which resulted in an increase of the Turkana County sample by 10%. This raised the total sample size to 710.

## Sampling Methodology

Sampled respondents were selected randomly from each designated site. Purposive sampling was applied to priority sectors in each livelihood zone. For the labor supply, survey the enumerators interviewed employees, entrepreneurs, and service providers. Interviews were conducted with employers, support providers, business associations, and government officials. Interview subjects were identified through a snowball approach as well as through the stakeholders' workshop.

## Qualitative Data Collection

Qualitative data collection involved key informant interviews, focus group discussions, and observations, which helped interpret findings from structured interviews.

- 1) **Focus Groups Discussions:** Focus groups were conducted with representatives of target groups across all sectors. Each guided discussion consisted of 8–10 people, drawn from a cross-section of ages, gender, and life stages. The groups included employed youth, men, and women as well as their self-employed counterparts. A total of 36 focus groups were conducted: 16 in Samburu and 20 in Turkana.
- 2) **Key Informant Interviews:** A total of 56 interviews, 34 in Turkana and 22 in Samburu, were held across all sectors and livelihood zones.

## Data Collation, Cleaning Analysis, and Reporting

### Debugging and Data Cleaning

Debugging was done continuously. Under the CAPI system, errors detected by the server manager were fed to field supervisors and corrections made with the concerned enumerators. The collected data was cleaned before analysis. The cleaning involved data profiling by getting frequencies for each variable to help identify missing and blank values, as well as variables that were wrongly recorded. The data were then visualized to get mean, median, mode, range and standard deviation to identify unexpected values.

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<sup>1</sup> Kenya Population and Housing Census 2019

## Data Analysis

Quantitative data analysis was run on SPSS for the complex analysis (both descriptive and inferential), and Excel to generate infographics and performance of simple analysis procedures. The complex analysis incorporated various statistical techniques and measures, depending on the variable under study. That included T-tests and ANOVA to test the difference in means and correlation for relationships between variables. Qualitative data analysis was done thematically, with subsequent coding to triangulate quantitative data as well as to interpret information from the quantitative analysis against the established research questions. Final figures were compared with secondary data and then integrated to generate observations and conclusions.

The analysis results were disaggregated by livelihood zones (Pastoral, Agro-pastoral and Urban), counties, gender, life stage, and age groups, and compiled into a draft report.

## Response Rates

The survey conducted 691 interviews, attaining a response rate of 97% across the two counties. Samburu had a 100% response rate while Turkana's was 89%. The response rate is presented in Tables 2 and 3.

Livelihood zones	Target sample size	Actual sample size	Response rate	Location
Northern pastoralist	33	27	82%	Baragoi, Ndoto
Eastern pastoralist	42	58	138%	Wamba Achers Post, Lolkuniani livestock market
Maralal urban	85	75	88%	Maralal ward, Lekurru livestock market
<b>Total n</b>	160	160	100%	

**Table 2: Sample size per selected sites in each livelihood zone in Samburu County**

Livelihood Zone	Target Sample Size	Achieved Sample Size	Response rate	(Location)
Turkana border pastoral	165	160	97%	Lokichogio, Lokitaung, Kaikor, Kakuma

<b>Turkana central pastoral LZ</b>	57	53	93%	Lokichar
<b>Lake Turkana fishing zone</b>	81	79	98%	Kalokol (Namukose, Namakat, Kalimapus, Kapua)
<b>Kerio Riverine - zone</b>	297	239	80%	Kerio Delta
<b>Turkwel Riverine agro-pastoral</b>				Turkwel
<b>Lodwar urban zone</b>				Lodwar township
<b>Total n</b>	600	531	89%	

**Table 3: Sample size per selected sites in each livelihood zone in Turkana County**

<b>Sector</b>	<b>Specific Businesses</b>	<b>Proportion in Turkana</b>	<b>Proportion in Samburu</b>
<b>Crops</b>	Agro vets, aggregators and cereal traders, vegetable traders, crop farmers	14%	4%
<b>Fishing</b>	Suppliers of fishing equipment, fishermen, local fish traders, fish exporters, loaders, storage providers, fishmongers, fish processors	5%	0%
<b>Livestock</b>	Livestock traders, herders, beekeepers	11%	23%
<b>Beauty</b>	Barbershop, salon, beauty parlors, boutiques,	2%	5%
<b>Construction</b>	Casual workers/masons, contractors, sand harvesters, plumbers, electrical wiring, quarries	7%	6%
<b>Tourism</b>	Curio shop business, restaurant & guest houses, hotels, food outlets	4%	4%
<b>IT</b>	Cyber café services, website designer	2%	4%
<b>Jua kali</b>	Welders, mechanics (auto and motorcycle), carpenters, bead making/basketry, phone and electrical repairs, car wash, tailors, blacksmith	28%	30%
<b>Trade</b>	Hardware shops, food/vegetable grocers, wholesale/retail shops, motor vehicle/cycle spare parts, charcoal traders	19%	16%



<b>Transport</b>	Bodaboda operators, matatu operators	9%	9%
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**Table 4: Distribution of the study samples by sectors in Turkana County**

### Brief Description of the Study Respondents

#### Gender and age of respondents

As shown in Table 5, 45% of the study respondents were women and 55% were men. Majority of the respondents were aged 18-35 years.

<b>Gender/Age</b>	<b>Samburu</b>	<b>Turkana</b>	<b>Aggregate</b>
<b>Female</b>	34%	49%	45%
<b>Male</b>	66%	51%	55%
<b>18-24 Years</b>	15%	14%	14%
<b>25-35 Years</b>	53%	41%	44%
<b>36-50 Years</b>	29%	35%	34%
<b>51-60 Years</b>	3%	7%	6%
<b>Above 60 Years</b>	1%	2%	2%

**Table 5: Response distribution by gender and age**

#### Respondents by type of employment

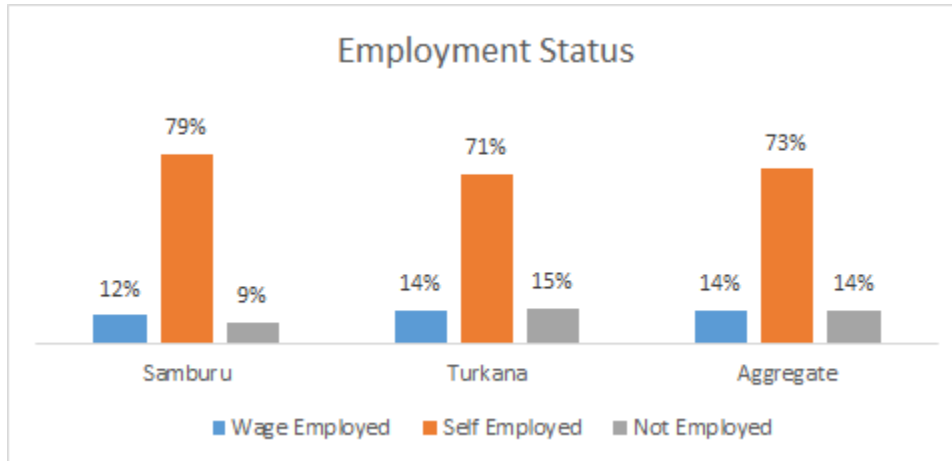
Nearly three-fourths of respondents were self-employed<sup>2</sup>. Fourteen percent had neither meaningful employment<sup>3</sup> nor a self-employment opportunity at the time of the study. They were

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<sup>2</sup> These are defined as the people who owned their own businesses and earned a consistent income from the business.

<sup>3</sup> These are defined as all those people who were earning wages and salaries from an employer

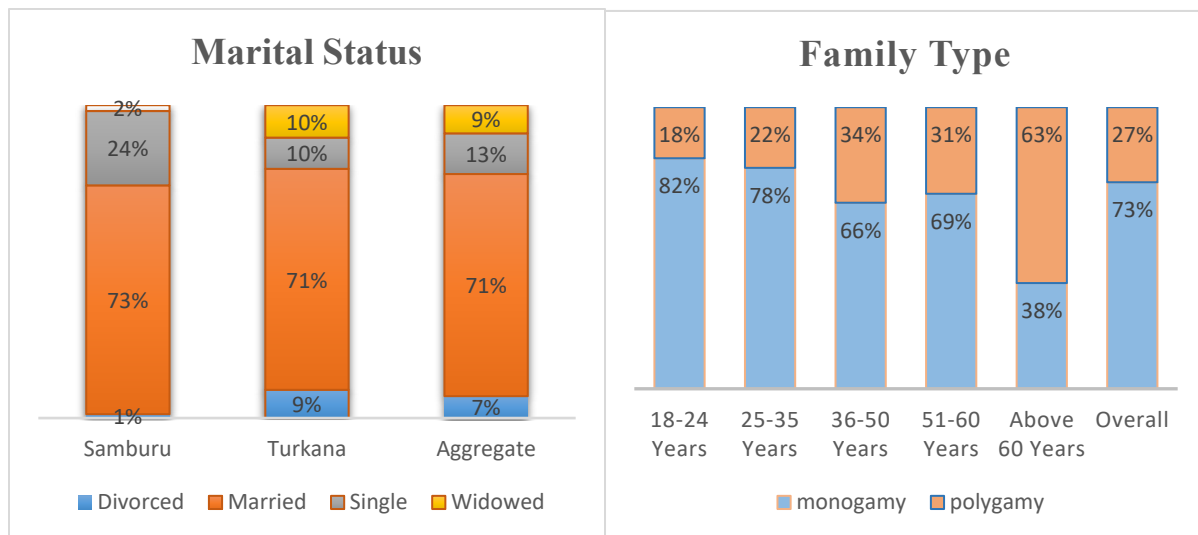
classified as unemployed, even if they had at one time worked or owned businesses.



**Fig 4: Respondents' employment status**

### Marriage status and family type

A majority (71%) of the respondents were married, 13% were single, and 7% were divorced. Of the married respondents, 73% were in monogamous relationships, while the others were polygamous, as illustrated in Figure 5. Older respondents tended to be polygamous.



**Fig 5: Marital status**

### Household Size

Average household size was four children, including one under age five, as presented in Table 6. An analysis of variance revealed that the number of children in a household is dependent on age ( $p < 0.05$ ); younger families had fewer children (18 – 24 years = 1, above 60 years = 6).

Age Group	Statistic	Number of children	Children below 5 Years	Number of Dependents
<b>18-24 Years</b>	N	100	100	100
	Mean	1.1	1	4.9
<b>25-35 Years</b>	N	301	300	301
	Mean	3.1	1.3	6.9
<b>36-50 Years</b>	N	234	234	234
	Mean	5.5	1.3	9.1
<b>51-60 Years</b>	N	41	41	41
	Mean	6.1	0.9	9.8
<b>Above 60 Years</b>	N	15	15	15
	Mean	5.9	1.0	9.1
<b>Samburu</b>	N	160	159	160
	Mean	3.1	1.2	5.8
<b>Turkana</b>	N	531	531	531
	Mean	4.1	1.2	8.1
<b>Aggregate</b>	N	691	690	691
	Mean	3.8	1.2	7.6

**Table 6: Size of household**

At least 70% of female respondents had children under age five. Turkana, 71% of female respondents had children under five, while in Samburu the figure was 68%.

### 3. STUDY FINDINGS

#### AN OVERVIEW OF TURKANA'S ECONOMIC PERFORMANCE

The time frame for this economic analysis extends from 2013/14 when devolution to Kenya's 47 counties began until the last financial year (2019/20). Results indicated that Turkana County had contributed an average of 1.1% to the national Gross Domestic Product (GDP) between 2013 and 2017<sup>4</sup>, with real Gross County Product (GCP) showing upward growth from KES 51.3 billion in 2013 to KES 78.3 billion in 2017 (figure 6). In real per capita terms, GCP per capita growth increased from 1.4 percent in 2014 to 4.5 percent in 2015, before contracting in both 2016 and 2017 by 0.7 percent and 2.8 percent (Figure 7). The 2016/17 downturn was largely due to a prolonged drought<sup>5</sup>, highlighting Turkana's vulnerability to climate change.

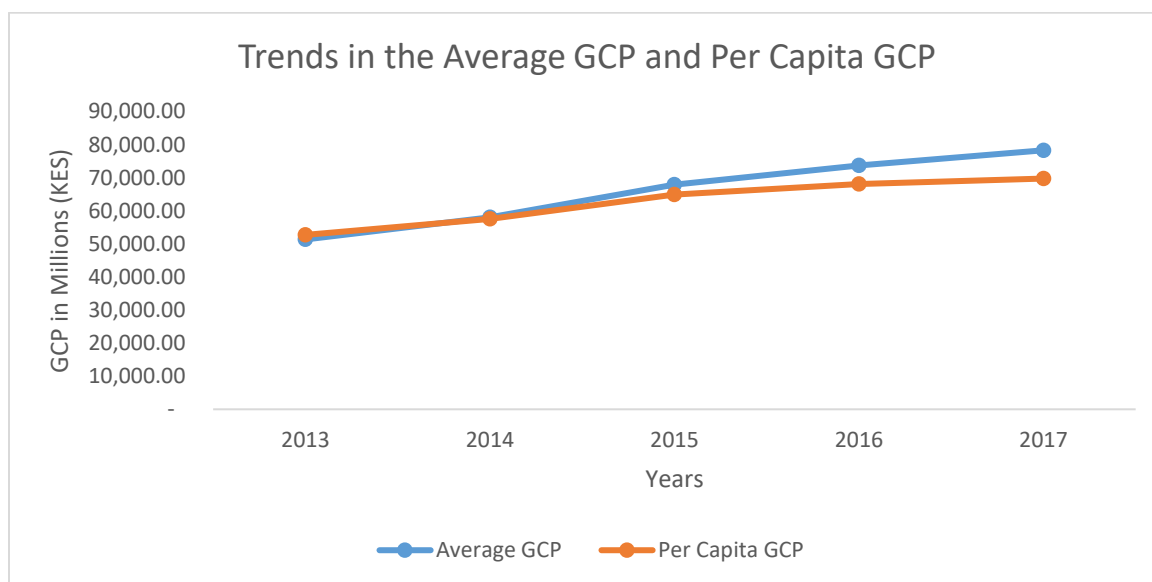
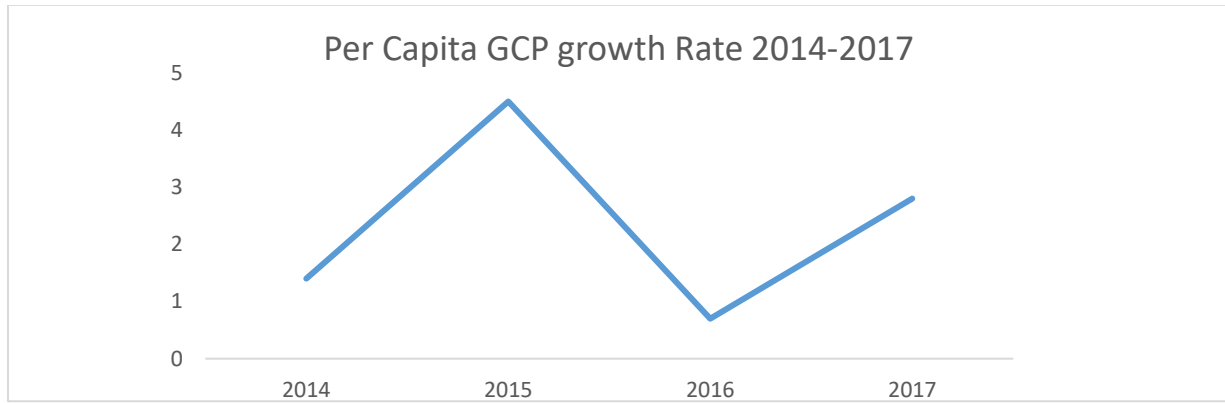


Fig 6: Turkana County GCP and per capita GCP from 2013-2017. Source: KNBS, 2019 GCP Report

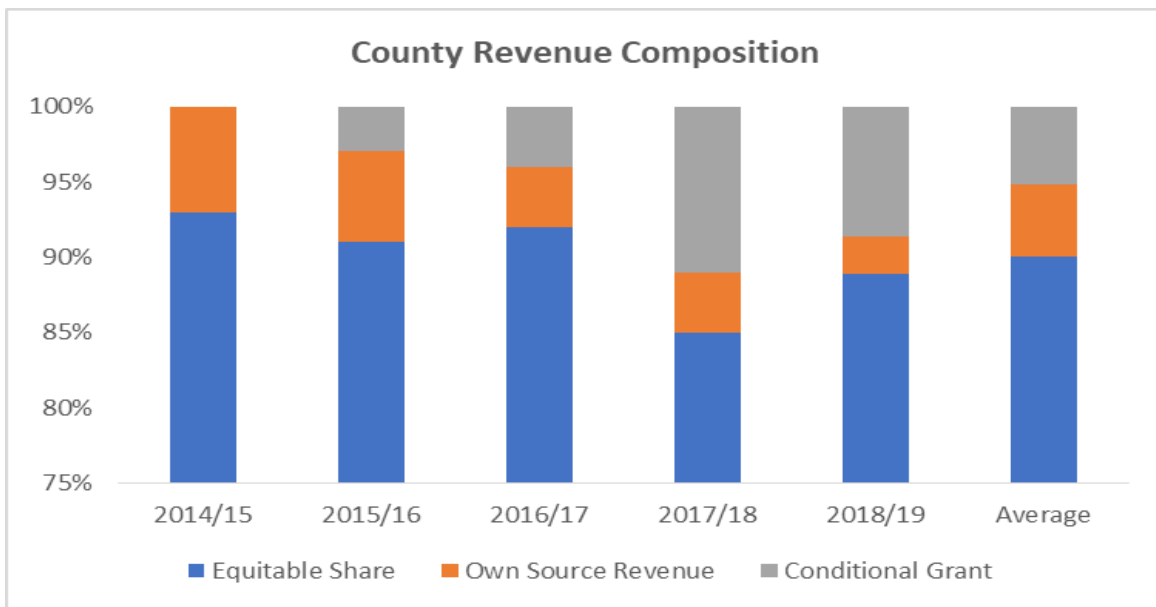
<sup>4</sup> KNBS County GCP Report, 2019

<sup>5</sup> KIPPRA Policy Brief 2020



**Fig 7: Per capita growth rate for Turkana County 2014-2017**

Data from the Commission on Revenue Allocation (CRA) reveals that Turkana ranks at the bottom of county revenue growth, with a rate of less than 50% in the six years under review<sup>6</sup>. In terms of Own Source Revenue (OSR), Turkana is among seventeen counties that collected less than 20% of their estimated revenue potential. As shown in Figure 8, the main revenue source for the county is the equitable share, while the conditional grant constituted an average of 5%. There is a notable continued reduction of OSR from 7% in 2014/15 to 2% in 2018/2019, indicating diminished capacity to collect revenue from its own sources. This has consequences for future ability to invest in the productive/primary sectors of the economy.

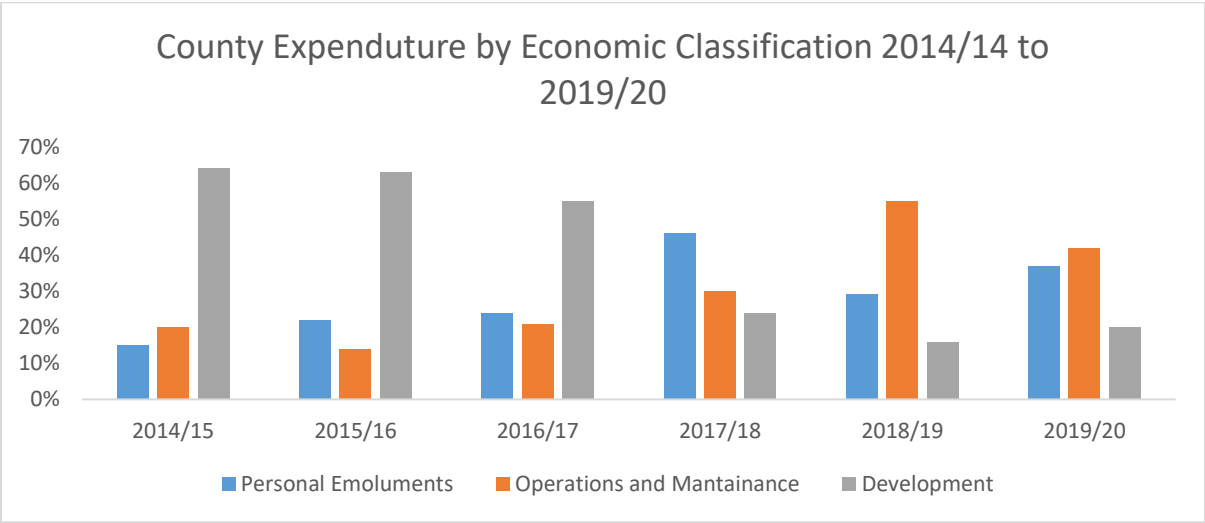


<sup>6</sup> CRA: County own-source revenue report, 2019

**Figure 8: Turkana County revenue composition. Source: Commission from revenue allocation 2019 report; Controller of Budget 2019/20 report**

Figure 9 shows the county’s expenditure by economic classification from 2014/15 to 2019/20. Development spending has trended downwards from 64% in 2014/15 to a low of 16% in 2018/19, with a mild increase to 20% in 2019/20<sup>7</sup>. Within this period, the wage bill more than doubled from 15% in 2014/15 to 37% in 2019/20. In the last four years, the operations budget steadily increased from 14%, tripling to 42% in 2019/20, all of which are clear indications that resources for development have dwindled in favor of recurrent expenses.

This limits resources for economic development, which ultimately leads to poor service delivery and increased vulnerability. As such, county development projects are likely to be limited to essential sectors like health. If this trend continues, donor projects that seek to leverage county investments will orient more toward human resource development than physical investment, further constraining the already limited infrastructure and limiting sectoral growth and job creation.

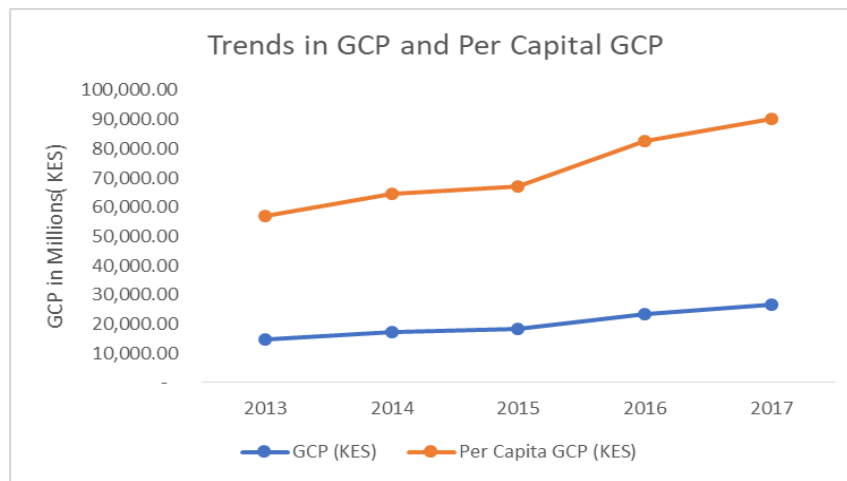


**Fig 9: Turkana County expenditure by economic classification 2014/14 to 2019/20. Source: Reports from Controller of Budgets from 2014/15 to 2019/20 financial years**

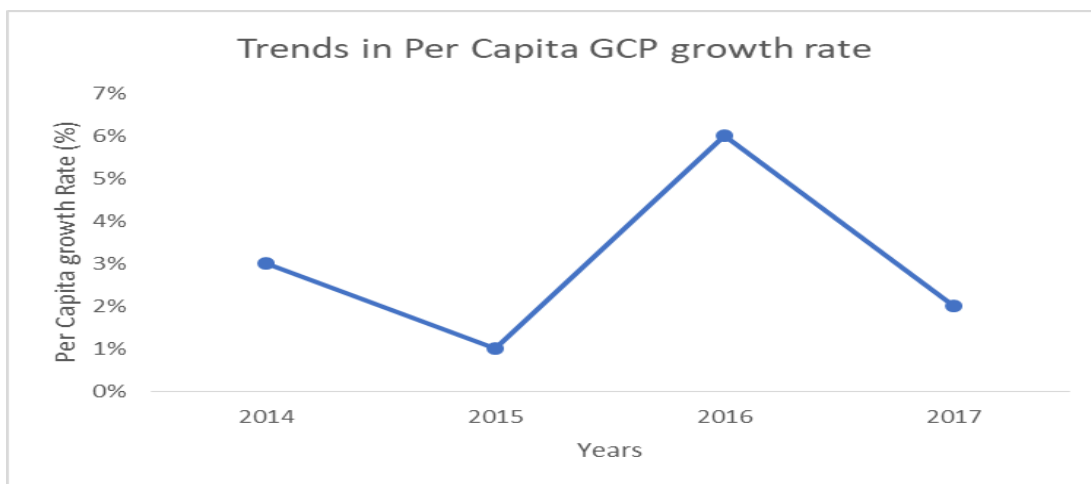
<sup>7</sup> Reports from Controller of budgets 2014/14 to 2019/20

## AN OVERVIEW OF SAMBURU'S ECONOMIC PERFORMANCE

Economic analysis covers the six years since devolution in 2013/2014 to the last financial year (2019/20). Available data from KNBS shows that Samburu contributed an average of 0.3% to the national GDP between 2013 and 2017<sup>8</sup>. Samburu's GCP has experienced steady but conservative growth from 14.6 billion in 2013 to 26.5 billion in 2017 (Figure 10). The same pattern was observed in per capita GCP as shown in Figure 11. In real per capita terms, the GCP growth rate decreased from 3% to 1% in 2015, before increasing sharply to 6% in 2016, followed by another dip to 2% in 2017 (Figure 11). The downturn could be attributed to the weather patterns, given that the economy of the county is largely based on agriculture.



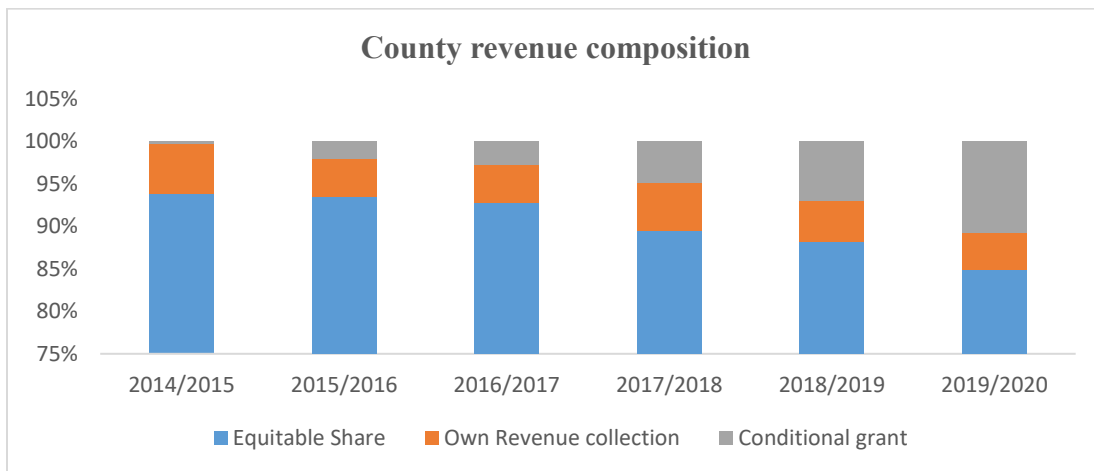
**Fig 10: per capita GCP and Real GCP for Samburu County 2013- 2017**



<sup>8</sup> KNBS County GCP Report, 2019

**Fig 11: Per capita GCP growth for Samburu County 2014-2017**

Data from the Commission on Revenue Allocation (CRA) reveals that Samburu’s revenue growth rate is among the nine lowest in Kenya, at less than 50% for the six years under review<sup>9</sup>. Samburu was, however, the only county that collected Own Source Revenue above estimated revenue potential, which was attributed to the comparative advantage conferred through wildlife conservation efforts anchored by the Samburu Game Reserve. As presented in Figure 12, Samburu gets most of its revenue from direct transfers from the national government as equitable share. The proportion of equitable share to the total county revenue has declined from 94% (2014/2015) to 85% (2019/2020). Revenue collection as part of county revenue has ranged between 4% and 6%, while conditional grants (DANIDA) have steadily increased in the proportion of the total revenue, reaching a high of 11% in 2019/2020.



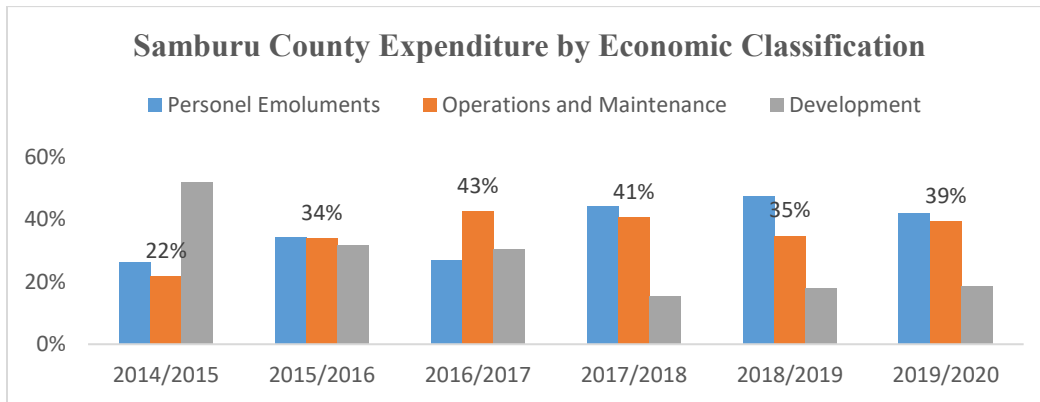
**Fig 12: Samburu County revenue composition. Source: Commission from revenue allocation 2019 report; Controller of Budget 2019/20 report**

Figure 13 shows country expenditure by economic classification. Samburu is spending a smaller portion of its budget on development, down from 52% in 2014/2015 to 19% in 2019/2020. Meanwhile, staff costs grew from 26% of the budget to 42%, driven largely by a growing number of county employees. The wage bill grew from 15% to 37%. Operations and maintenance has seen a slow but steady increase from 22% in 2014/2015 to 43% two years later, and slowing to 39% two years after that.

<sup>9</sup> CRA: County own-source revenue report, 2019



Development expenditure declined, revealing a significant gap in public funding of development initiatives. As with Turkana, low development spending indicates a disproportionate investment in human resources over physical infrastructure, which means that primary sectors that could create more jobs will likely face slower growth. These realities must be considered in the design of labor market interventions.



**Fig 13: Samburu County Expenditure by Economic Classification**

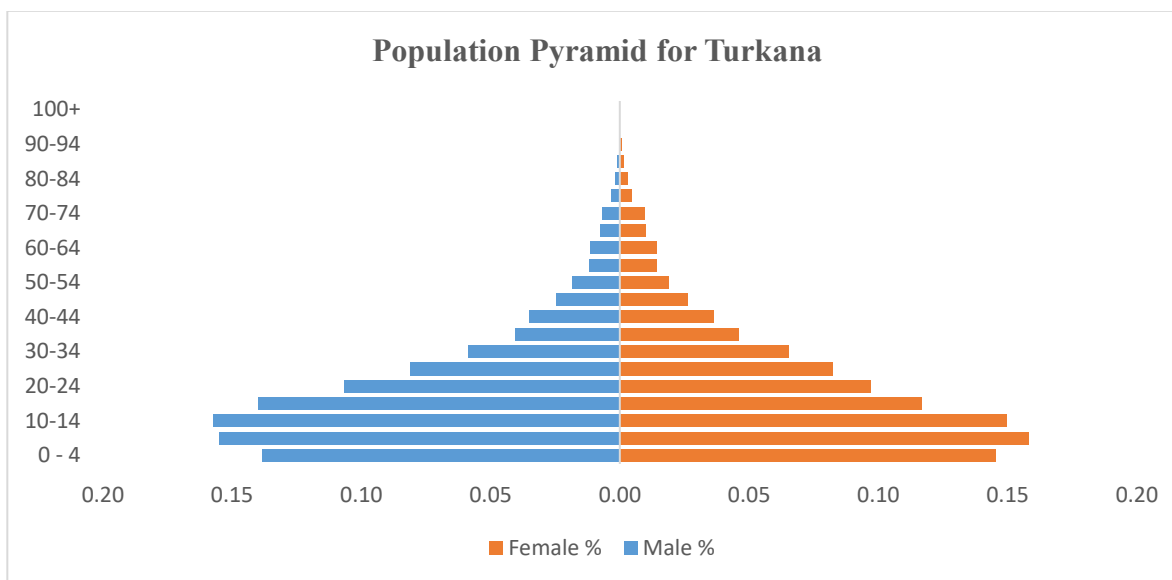
## LABOR MARKET DEMAND: FUTURE TRENDS IN EMPLOYMENT CREATION

### Overview

Current and future job creation is influenced by demographics, infrastructure investments, and legal and policy frameworks.

### Future trends in employment creation in Turkana

Turkana’s population is young: 58 percent of people are under 20 (figure 14). This creates a high dependency ratio of 91% (KNBS, 2019), which places a huge burden on services like health, education, and water. This, coupled with limited revenue generation, is likely to continue to stymie county development.



**Fig 14: Turkana County population distribution**


Both urban and refugee populations have increased. The overall urban population increased 48% from 2009 to 2019, growing from 95,025 to 140,791. Lodwar Township’s population grew 43%, from 58,218.00 to 82,970.00. The refugee population in Kakuma camp and Kalobeyei settlement increased 145%, from 80,000 to 196,050 due to continued regional tensions.

Urbanization is driven by several factors:

1. Refugee influx and resettlement in Turkana West
2. Climate change-induced rural-urban migration
3. Labor out-migration, as youth are more educated
4. Decentralization and devolution of resources
5. Infrastructural development

Increased demand for goods, services, and housing in towns is stimulating growth in service sectors. Demand for food supplies, trade, and services like transport will continue to grow to meet the needs of the growing urban population. The informal *jua kali* sector will also grow to support the transport, construction, and agriculture sectors, while also providing household equipment. This implies a need for skilled labor in urban areas, especially in construction and hospitality. Growing transport, education, and health sectors will also require staff and provide opportunities for private businesses.

Demand for food, household equipment, and furniture is likely to bolster formal and informal SMEs. This will drive demand for skilled labor and boost private sector growth.



Urban migration is the natural outgrowth of the decreasing viability of traditional pastoralism. New town residents, especially those who left their homes because of climate change or conflict, are often left on their own, with little support to adapt to their new lives – which could provoke crises in terms of inter-community conflict, exposure to risk-seeking behaviors and other community-based calamity.

New infrastructure funded by the national government, county government, humanitarian and UN agencies could spur significant social and economic development in Turkana. These include:

- the Lamu Port, South Sudan, Ethiopia Transport Corridor (LAPSSET) corridor
- construction of the Lodwar-Lokichogio Road
- upgraded airstrips in Lodwar and Lokichogio
- construction of Lokichar-Lamu crude oil pipeline
- development of a Turkana Resort City
- commercialization of Turkana fish
- Kalobeyei housing project


The LAPSSET development is expected to trigger growth in tourism, fishing, and livestock as businesses take advantage of a free-trade zone and the Inland Container Depot in Lokichogio. This could provoke greater in-county migration, increasing demand for housing, hotels, and food. That means more jobs in construction, health, hospitality, trade, ICT, and food supply chains.

Many businesses are experiencing efficiency gains and greater market access through online platforms, with a commensurate increase in opportunity for local populations to acquire computer skills. Learning Lions offers local training for digital careers. The ICT Learning Centre initially could accommodate 70 learners at a time but has now acquired 50 hectares of land near Lake Turkana and built an ICT Campus with working space and housing for 250 learners<sup>10</sup>. So far, the new campus has taught 300 youth website development, graphic-design and animation<sup>11</sup>. The Norwegian Refugee Council has shifted from technical to ICT training for online freelance and digital marketing. They are working with Total Kenya, Biolight International Trade Centre, and MasterCard to develop an app to link wholesalers to retailers. Turkana University College, Turkana College of Technical and Business Studies, Juluok Computer Technology Centre, and the Africa Institute of Research and Development Studies also offer ICT courses. All this indicates that the county is building its human capital even in the face of generational and historical illiteracy and innumeracy.

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<sup>10</sup> <https://www.learninglions.org/about.php>

<sup>11</sup> <https://www.kenyanews.go.ke/ict-cs-tours-turkana>



In the short run, main urban centers will benefit most from these new opportunities. Other areas have little electricity and poor mobile connectivity<sup>12</sup>. ICT businesses need support by scaling up sustainable green energy solutions in areas that have no electricity.

Climate change is hurting pastoralists, but other jobs might still be created in energy and natural resources. The county's vast natural resources could spur economic growth and job creation, as shown in the 2018-2022 CIDP:

- a) Wind power: Turkana's mean annual wind speeds are above ideal for wind generation, especially in the north and near Lake Turkana. Wind resources are consistent throughout the year. The Lake Turkana Wind Project in Marsabit County is the biggest wind power project in Africa, built by a private consortium. on 162 km<sup>2</sup>, with potential to produce 300 MW<sup>13</sup> on the border of Turkana and Marsabit<sup>14</sup>. The project has rehabilitated roads and created unskilled jobs like security guards.
- b) Solar energy: Turkana receives between 4 and 6 KWh/m<sup>2</sup> of daily solar radiation, giving vast potential for solar energy production (Turkana County Government 2015). Currently, only 0.1% of the population uses solar power.
- c) Geothermal power: Two Turkana sites, the Barrier Volcano and Namarunu, have been identified as potential geothermal power sites under Kenya's Least Cost Power Development Plan.
- d) Oil and gas: Oil was discovered in the Lokichar basin in 2012. Drilling by Tullow Oil drew an influx of job seekers, with some towns growing up to 500% in two years. If production starts as planned in 2021 via a 750 km pipeline from Turkana to Lamu, oil is expected to contribute significant wealth to the county as well as create demand for new skills in drilling, which are difficult to source locally.

The ability of these energy projects to create jobs depends on heavy investments by government and development partners. Short-term opportunities for USAID Nawiri include promoting solar power technologies to facilitate trade, create direct jobs, power irrigation systems, and increase productivity.

Turkana is home to one of the largest refugee camps in Kenya, the Kakuma camp and the Kalobeyei integrated settlement in Turkana West. Vibrant trading and humanitarian activities around Kakuma are geared to the needs of the refugees and the host community. Refugees account for 15% of Turkana's population (Turkana CIDP, 2018-2022). The arrival of the first 35,000 refugees in 1992-1993 changed the social economic dynamics of Kakuma. The

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<sup>12</sup> Turkana County ICT roadmap 2017-2022

<sup>13</sup> Turkana County CIDP, 2018-2022

<sup>14</sup> <https://www.power-technology.com/projects/lake-turkana-wind-power-project-loyangalani>

population almost doubled by 2000 (IFC, 2018). Currently, 210,384 refugees and asylum seekers are in Kakuma and Kalobeyi. Kakuma experiences an estimated 600 births every month, plus new refugee arrivals (Swisscontact, 2020). Food aid arrives from humanitarian agencies, and the refugees and host community are strongly interconnected through trade in goods and services. A 2018 study by IFC estimates that households in Kakuma consumes KES 5.8 billion (\$56.2 million) annually. Of this consumption, the camp, with 160,000 registered inhabitants at the time of the survey, spends KES 1.7 billion (\$16.5 million), while the town, with a population of about 60,000, spends about KES 4.1 billion (\$39.7 million).

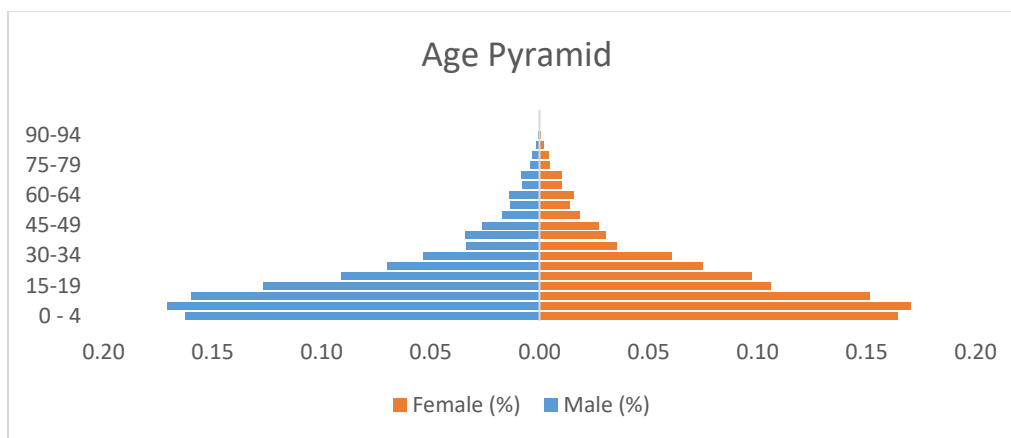
### **Future trends in employment creation in Samburu**

The Kenya population and household census (2019) shows that 33% of the county is aged below 10 years, 27% aged 10-19, 32% aged 20-49, and 9% aged 50 and above.

Table 7 shows the strong population of 72% in main towns. County seat Maralal town saw its population almost double from 2009, while Archers Post grew by 71%. Insecurity and drought in Samburu North caused Baragoi’s population to shrink by 9%. The growing urbanization is expected to create demand for services like hospitality, transport, services, and trade. Since most of the labor force comes from pastoral zones, they would need to learn skills to work in these sectors.

<b>Urban area</b>	<b>2019</b>	<b>2009</b>	<b>Change</b>	<b>% change</b>
<b>Maralal</b>	31350	15860	15490	98%
<b>Achers Post</b>	4620	2697	1923	71%
<b>Wamba</b>	4580	2743	1837	67%
<b>Baragoi</b>	4254	4694	-440	-9%
<b>Total</b>	44804	25994	18810	72%

**Table 7: Increase in population in the main urban areas of Samburu County 2009-2019**



**Fig 15: Samburu age structure**

Infrastructure projects will stimulate local economic growth:

- the LAPSSET Corridor
- tarmacking of the Nyahururu-Rumuruti road
- construction of the Isiolo-Moyale road

The LAPSSET corridor will pass through Samburu North from Baragoi to Lokichar, linking the region with South Sudan and Mount Kenya. The link to Ethiopia could tap into food production zones in Southern Ethiopia. The establishment of the Isiolo resort city in neighboring Isiolo county, under the Kenya Vision 2030 plan, could influence some sectors in Samburu East. Other investments include the construction of Samburu Abattoir by the county in partnership with the European Union, which could give livestock subsectors a boost in creating youth employment.

The Loiyangalani wind power project, on the county line, could produce similar job creation potential in Samburu as in Turkana.

Samburu's rugged landscape provides vital wildlife habitat, supporting dozens of species, including elephants, lions, and the endangered Grevy's zebra. This has led to a vibrant tourism sector in Samburu East, owned and managed by community conservancies under the Northern Rangeland Trust (NRT). In addition, the Samburu Game Reserve and several private tourist hotels provided employment, mainly in Samburu East.

### **Perspective by USAID Nawiri target group**

Focus groups explored changes over the last five years that have affected employment creation, to provide insights on possible future trends. Responses clearly revealed how devolution, droughts, security, and government policies have affected the labor market, as below:

- Devolution: employment opportunities were created in main urban centers, triggering migration. Devolution has also increased access to government services

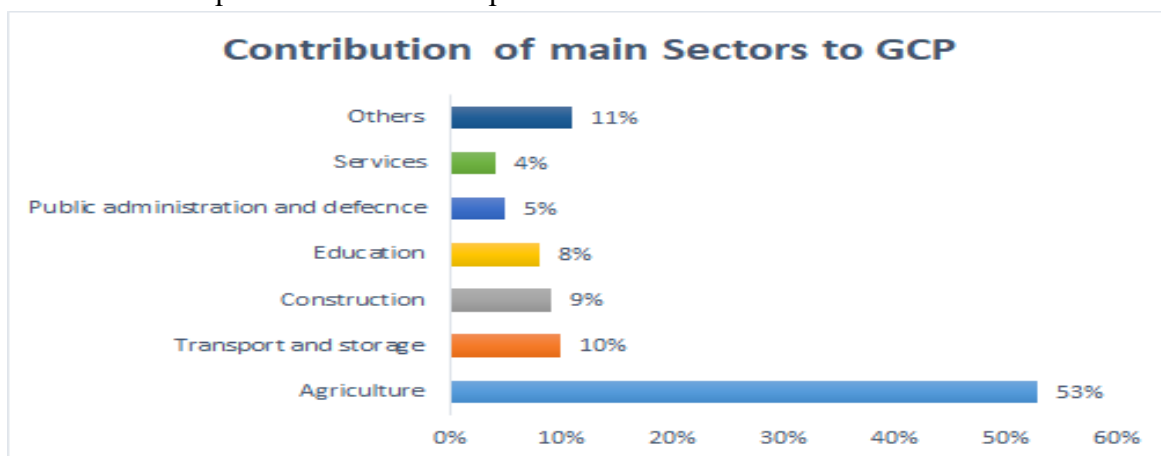
including health care and education. Construction of livestock sale yards is a major development, but competition has also increased, driving down individual ability to profit and maintain livelihoods.

- Insecurity and climate change are provoking migration and decreased viability for pastoralism – with little investment by government to take its place. This puts pressure on the expanding urban settlements, both in terms of provision of service and access to income generation.
- COVID 19 has compounded the challenges of migration to urban areas and development of livelihood opportunity. Many fledgling businesses have closed, leaving populations more vulnerable.
- Land demarcation is attractive and driving some degree of urban to rural migration for those who are able to access title deeds to engage in commercial farming.
- Increased access to internet technology has been a hallmark of the last five years, provoking new opportunities for marketing. This is an outgrowth of the increased access to electricity connectivity in the region.

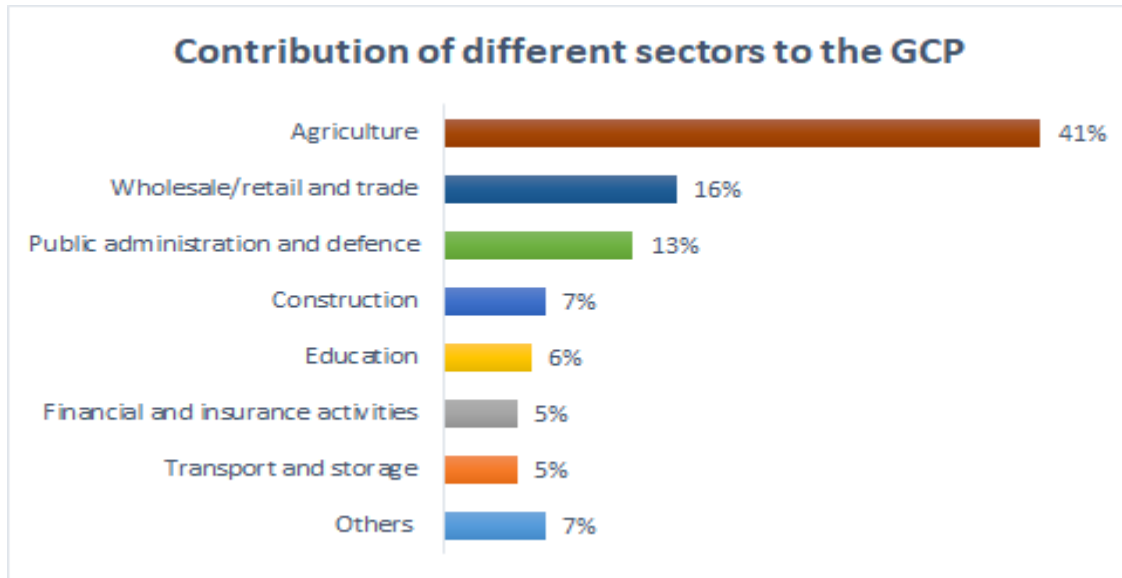
## SECTORS PROVIDING EMPLOYMENT IN TURKANA AND SAMBURU

### Contribution of Different Sectors to the Economy of the Counties

Figures 16 and 17 present the contribution of different sectors to the economies of the two counties. In Turkana, agriculture is the leading sector, contributing 53% to GCP, and 1.5% of the national agriculture GDP, with fisheries, crop production and livestock the biggest components. The rest of the economy comprises transport and storage (10%), construction (9%) and education (8%). In Samburu, agriculture is the leading sector, contributing 41% of GCP and 0.4% to the national agricultural GDP. Trade and transport sectors are among the other leading sectors with an estimated contribution of 16% and 13% to the GCP. Others include construction (7%), public finance and administration (13%), and financial services and insurance (5%). The next sections provide a detailed analysis of these sectors, showing present and future job opportunities and the interventions required to achieve this potential.



**Fig 16: Turkana's economy by sector. Source: KNBS, Gross County Product Report, 2019.**



**Fig 17: Contribution of different sectors to the economy of Samburu County**



## AGRICULTURE SECTOR

### 1. Livestock Sub Sector

Livestock production is the economic mainstay of both counties, yielding meat, milk, meat, blood, and hides. But livestock are also a form of savings, with immense cultural symbolism. One third of all households, and 93 percent of farm households, keep livestock. Given the average household size of 5.6 persons, 317,200 people in the county depend on the livestock.

The latest CIDP highlights growing pressures on nomadic pastoralism, as populations increase faster than new livelihood options. Climate change has caused more frequent deadly floods, droughts, famine, and diseases. This has stressed the natural resource base, degrading the environment. Table 8 shows the precipitous drop in livestock populations in the last decade, with the cattle population falling by nearly 79%. A study by Kenya Market Trust (KMT) reported a drop of 60% in the 38 years ending in 2015,<sup>15</sup> attributed to climate change.

District	Cattle	Sheep	Goats	Camels	Donkeys	Chicken
2009						
Turkana Central	196,492	560,671	1,273,445	150,700	90,067	31,178
Turkana North	652,288	1,274,062	1,874,668	269,185	194,434	27,317
Turkana South	685,832	1,682,418	2,846,748	412,577	273,686	122,298
Total	1,534,612	3,517,151	5,994,861	832,462	558,187	180,793
2019						
Kibish	57,999	120,613	201,686	3,736	13,340	1,264
Loima	19,660	76,347	216,815	20,950	9,650	5,905
Turkana Central	3,797	111,624	169,099	16,437	6,207	11,830
Turkana East	123,975	399,496	685,226	135,617	47,121	12,325
Turkana North	5,466	52,210	123,728	8,110	5,749	2,738
Turkana South	15,554	126,223	333,025	30,519	10,098	11,394
Turkana West	98,353	167,243	261,350	46,554	24,641	7,866

<sup>15</sup> <https://www.kenyamarkets.org/cattle-population-in-decline-in-asals/>

County Total	324,804	1,053,756	1,990,929	261,923	116,806	53,322
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**Table 8: Turkana livestock population trends 2009-2019; Source: KNBS, 2019, 2009**

Both McDowell (2016) and Save the Children (2016) show poor households in pastoral zones tend to rely more heavily on food aid, payments in kind, crops and wild foods, safety nets, crop sales, self-employment and casual employment as income sources. These results show that though the community is largely pastoral, the role of livestock in most households, especially the poor, is diminishing with time. The greatest challenge, however, is that few alternatives are being made available to these households.

Land cover analysis shows a significant depletion of forests and vegetation cover, with the bare area growing by 1,474% and forest cover decreasing by 78% from 1979 to 2015, as shown in Table 9. Meanwhile, invasive species like *Proposip Spp* commonly referred to as Mathenge, are slowly suffocating the pastureland, making livestock production even more fragile.

COVER	1979 Area (Ha)	2015 Area (Ha)	% Change
Bare Area	13,035.90	205,284.30	1474.76
Built Up	162.00	3,025.90	1767.84
Cropland	557.20	3,274.40	487.65
Forestland	112,576.20	25,237.00	-77.58
Grassland	2,234,933.50	2,634,989.00	17.90
Riverine	60,072.30	100,345.50	67.04
Shrubland	4,288,285.80	3,532,906.00	-17.61
Water body	282,579.50	279,246.50	-1.18
Wetland	43,201.80	251,095.50	481.22
Total	7,035,404.20	7,035,404.20	

**Table 9: Land cover change in Turkana. Source Kaoga 2016**

Interviews revealed other challenges:

1. Subsistence-based production, which affects the quality and quantity of animals supplied to market

2. Collapse of supporting institutions that could have stimulated growth and employment. Examples include a nonfunctional tannery and the Lomodot slaughterhouse
3. Weak producer and trader institutions, leading to weak value chain governance. Pastoralists' participation is limited, while middlemen dominate an unstructured market system.
4. Limited investment by government in holding grounds and water points, especially during dry seasons. Government offers little support to develop alternative production models that could adapt to climate change
5. Limited skills leading to missed opportunities along the value chain, as well as inefficient business /production models

To design appropriate interventions, this review further analyzed the shift from livestock to other livelihood options. A closer analysis shows the population shrinking in Turkana West (-2%), Loima (-21%) and Turkana North (-11%), but growing in Turkana East (+53%), Turkana Central (+36%) and Turkana South (+13%).

The changes show:

- a) Migrations from pastoral zones in Turkana North and West, due to livestock losses, to Turkana Central and East to explore urban or fishing livelihoods. Parts of Turkana East close to the Kerio and Turkwel Riverine have also attracted people seeking agro-pastoral livelihoods. Figure 7's map shows migrations towards the lake and agro-pastoral areas
- b) Turkana West's population dropped from 2009 to 2019 despite a 145% growth at Kakuma to 196,050. As of July 2020, refugees comprise 45% of Turkana West's population, on the way to outnumbering the host community<sup>16</sup> and demonstrating the profound shocks to the host community. The integration of refugees under the Kalobeyei Integrated Socio and Economic Development Programme (KISED P) could provide greater opportunities for the host community in the longer term. The 2019 census took place a year after the program's first phase began, so its effects may not have been fully felt.
- c) Increased migration to the central and eastern regions indicates mounting pressure on fishing, agro-pastoral, and urban livelihood zones to absorb unskilled migrants into labor markets. Without skill building, these migrants are at risk of greater vulnerability, which could compromise already fragile livelihood zones.
- d) Pastoral zones are increasingly vulnerable to more profound climate shocks. Remnant populations, especially vulnerable households in the pastoral zone, need support to find realistic job opportunities.

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<sup>16</sup> UN Habitat: Kakuma & Kalobeyei Spatial Profile, 2021

Sub County	2009	2019	% Change
Loima	119,932	106,635	-11%
Turkana Central	134,674	183,121	36%
Turkana East	90,466	138,265	53%
Turkana North	129,087	101,516	-21%
Turkana South	135,913	153,350	13%
Turkana West	245,327	239,323	-2%
Total County	855,399	922,210	8%

**Table 10: Changes in Turkana’s human population, 2009-2019. Source: KNBS 2009 and 2019 Census Reports**



**Fig 18: Indigenous village relocation (migration) to the Omo River and Lake Turkana: 1960 to present. Major livelihood dependence on lake and river is at the core of the region-wide exchange network.**

**Source: Carr, 2017**

### Samburu

Most direct and indirect employment in Samburu is connected to livestock. The CIDP reports that 60% of the county’s economy is in livestock, generating an estimated annual income of KES 7.45 billion. Some 62% of all households, and 95% of farming households, keep livestock according to the KNBS 2019. With an average household size of 4.7, an estimated 193,155 people benefit from livestock.

The role of livestock in providing some degree of livelihood protection cannot be overemphasized, given the climate. More than 75% of Samburu’s land is classified as ‘low-potential’ rangeland with 250 – 600 mm of rain a year. Only 7% is considered medium-to-high-potential farmland with 600-900 mm of rain per year, according to the most recent CIDP. Livestock is mainly kept by nomadic pastoralists, with limited ranching activities in Samburu East. The CIDP showed over 40 registered ranches working in livestock grazing and wildlife conservation.

Table 11 presents the county’s livestock population. The agro-pastoral zone has the most livestock, in line with its higher human population. These trends may change as Samburu Central subdivides its land. Livestock has shown some degree of resilience to recurrent droughts. Poultry has more than doubled (+139%), highlighting the extent of livelihood diversification as well as evolution of cultural practices, as traditionally, chicken was not part of the normal diet.

Samburu Central’s cattle population more than doubled (+102%), while Samburu East’s grew 83%. Populations of sheep, camels and goats also increased in the sub-counties. But in Samburu North, other than chicken and pigs, all livestock species declined, showing possible livelihood shifts in the near future.

2009							
Sub County	Cattle	Sheep	Goats	Camels	Donkeys	Pigs	Chicken
Samburu Central	78,123	175,415	148,368	3,544	4,281	60	28,755
Samburu East	37,350	69,422	131,840	7,212	10,363	95	8,660
Samburu North	69,193	142,861	270,542	22,068	12,178	32	5,296

Total for County	184,666	387,698	550,750	32,824	26,822	187	42,711
2019							
Sub County	Cattle	Sheep	Goats	Camels	Donkeys	Pigs	Chicken
Samburu Central	158,042	330,491	279,764	13,676	8,545	127	74,667
Samburu East	68,439	138,601	249,275	17,397	13,081	45	18,575
Samburu North	59,152	97,680	187,548	17,099	8,249	98	8,927
Total for County	285,633	566,772	716,587	48,172	29,875	270	102,169
Change	100,967	179,074	165,837	15,348	3,053	83	59,458
	55%	46%	30%	47%	11%	44%	139%

**Table 11: Changes in Samburu’s livestock population. Source: KNBS, 2019; KNBS, 2009**

The human population has shifted in similar ways, as in Figure 19 and Table 12, demonstrating the threats to pastoralism in areas including Samburu North that include both drought and insecurity.

The Kenya Inter-Agency Rapid Assessment 2013<sup>17</sup> reported that Baragoi in Samburu North experienced bloody inter-communal conflicts and cattle rustling that claimed lives of security forces and local inhabitants. As a result, the report said livestock were moved to very cold forests in Mt. Nyiro and Loibachai, which affected their health. An estimated 200 goats died in Wuaso Rongai from diseases like pneumonia. An unknown number of poultry died during the relocation from Marti to Morijo. Figure 19 shows the conflict-related migrations map for Samburu, as documented by Kaoga, 2016<sup>18</sup>. Most migrations emanated from the north, heading east and west, which could explain the shrinking human and livestock populations in Samburu North.

<sup>17</sup> Kenya Inter-Agency Rapid Assessment Report, 2013

<sup>18</sup> Kaoga, J. e. (2016). Report on Climate Change-Induced Conflicts and Migration, University of Nairobi Institute for Climate Change and Mitigation

<b>Sub County</b>	2009	2019	Change	% Change
<b>Samburu Central</b>	81,094	164,942	83,848	103%
<b>Samburu East</b>	59,094	77,884	18,790	32%
<b>Samburu North</b>	83,759	67,521	(16,238)	-19%
<b>Total County</b>	223,947	310,347	86,400	-39%

**Table 12: Changes in human population in Samburu County between 2009 and 2019**



**Fig 19: Conflict migration routes in Samburu. Source, Kaoga 2016**

Land cover maps (1986 and 2015) show significant depletion of forests and vegetation, with forest land down 39%, water bodies down 32%, and wetlands down 17.38%, as shown in Table 13, in comparison to cropland growth of 570%. Cropland, grassland, and scrubland have encroached into forestlands. Bare area increased by 1.82%. These changes all affect livestock productivity in the rangelands.

Land Cover	1986 Area (Ha)	2015 Area (Ha)	% Change
<b>Bare Area</b>	66,734.40	67,950.50	1.82
<b>Built Up</b>	93.1	356.3	282.71
<b>Cropland</b>	4,844.70	32,478.20	570.39
<b>Forestland</b>	335,967.10	205,345.30	-38.88
<b>Grassland</b>	661,589.70	678,960.70	2.63
<b>Riverine</b>	21,825.10	30,988.40	41.99
<b>Shrubland</b>	1,048,800.20	1,077,178.70	2.71
<b>Waterbody</b>	12,825.10	8,736.90	-31.88
<b>Wetland</b>	472.50	390.40	-17.38
<b>Total</b>	2,102,385.40	2,102,385.40	0



**Table 13: Land use land cover for Samburu, 1986 to 2015**

These results suggest that there are expanding opportunities to promote poultry farming as an alternative livelihood, with commensurate opportunity to increase employment opportunities at the

production and marketing levels, with four main pathways. Each has different entry points, and different demands.

#### Production: Farm employment

In pastoral and agro-pastoral areas, unskilled laborers work as herders and livestock owners. Youth find work as paid herders or work unpaid for family. While this can provide livelihood opportunities, it is not necessarily sustainable due to the prevailing externalities provoked by climate change and the shifting interests of the youth population, who may be more drawn to prospects for wage labor and self-employment in the growing urban centers in the region. Whether it is bodaboda businesses or other service industry-oriented opportunities, there are gaps in farm labor that are compromising the sector's growth. Exploration of market-oriented systems, therefore, including livestock finishing enterprises in the agro pastoral area, could significantly improve long-term employment prospects.

#### Marketing: Aggregation and trade

Sourcing and transporting livestock from far-flung areas is a growth sector in livestock, with markets distributed across the two counties. Growth potential is possible in aggregation and market-based brokering. Livestock marketing councils are working closely with pastoral youth of the moran, or warrior, age class, to both provide a sustainable income to these young men and to divert them from the cattle rustling that compromised security in the region. Prospects for employment creation remain good due to high demand for red meat and low local supply. Well-managed markets like Lolkuniani in Samburu East attract approximately 572 youth per week, each earning about KES 7,500 per week by trading in goats. CLMS Turkana estimates that one trader in the secondary market could link to at least 40 traders upstream.

#### Livestock market as a driver for local economy – the case of Lekuru Market in Samburu Central.

Lekuru, in Samburu Central, is the second-largest livestock market in Samburu: a weekly trading hub for Samburu, Laikipia, and Isiolo counties, with external traders from end markets in Nairobi, Laikipia, and Mount Kenya.

Local trade is dominated by young men, who operate across the value chain, including:

1. Bush traders who gather animals from manyattas to sell at the market
2. Traders who buy livestock to sell at other markets around Isiolo, Samburu, and Laikipia. This is the largest group of traders, who use economies of scale to cover transport costs through aggregation of animals from different sources for buyers from end markets

### 3. Intermediates who act as go-betweens for buyers from end markets and local traders

External traders work together with local traders to stimulate the market, bringing cash to meet the aggregated local trade. Participation of external traders, who in this case operate as lead firms in the market, is determined by factors such as security, accessibility and presence of conflict management structures to ensure cooperation with local traders. Markets with only local buyers usually experience low prices since local buyers are unable to invest in aggregation. Instead, those local buyers tend to form cartels – which in turn exploits the pastoralists. Presence of both local and external buyers results in competition that improves pricing for the pastoralists.


Lekuru's governance is its strength. Its co-management model fosters sustainability and efficiency through community ownership. Funds are re-invested into improving market infrastructure, peace building, and support to market processes. The model demonstrates the potential within communities and businesses to engage the public sector and provide high-value services.

Lekuru's governing body, the Livestock Marketing Association, has 12 members and two ex-officio members, among them one representative from each of Lekuru's eight villages, one youth, two of traders from other markets and one from the sub-county. The LMA employs up to 10 youth as cess collectors, cleaners or in other roles.

The LMA ensures government security personnel patrol on market days. It maintains market infrastructure and collects cess from sale yards. The county deploys revenue officers who supervise and support management committees, with livestock sale fees shared by the county and the LMA. The money is spent on wages for cess collectors and watchmen, as well as lunches for security personnel and LMA members. Those costs are deducted from the total collection before sharing.

The community's share is deposited in bank accounts, which eventually support development projects in the eight villages. For example, the Lekuru LMA recently provided 700 students with bursaries to cover part of university and secondary school fees. The funds are also used to facilitate security and peace-building initiatives. The LMA defused a recent conflict by paying KES 240,000 as compensation to an owner whose livestock had allegedly been stolen. The study team were informed that the LMA chairman was attending a peace-building meeting in Baragoi, using funds from the same kitty.

Other businesses are drawn to the market, due to its good governance and ability to attract external buyers. Traders sell household goods, fresh produce, groceries, clothes and veterinary drugs. Others operate makeshift hotels or sell mobile phones. This has significantly strengthened the local pastoral economy, improved food and nutritional security, empowered women, and created jobs. The market has become more of a shopping mall for the community, not only a livestock trading ground.

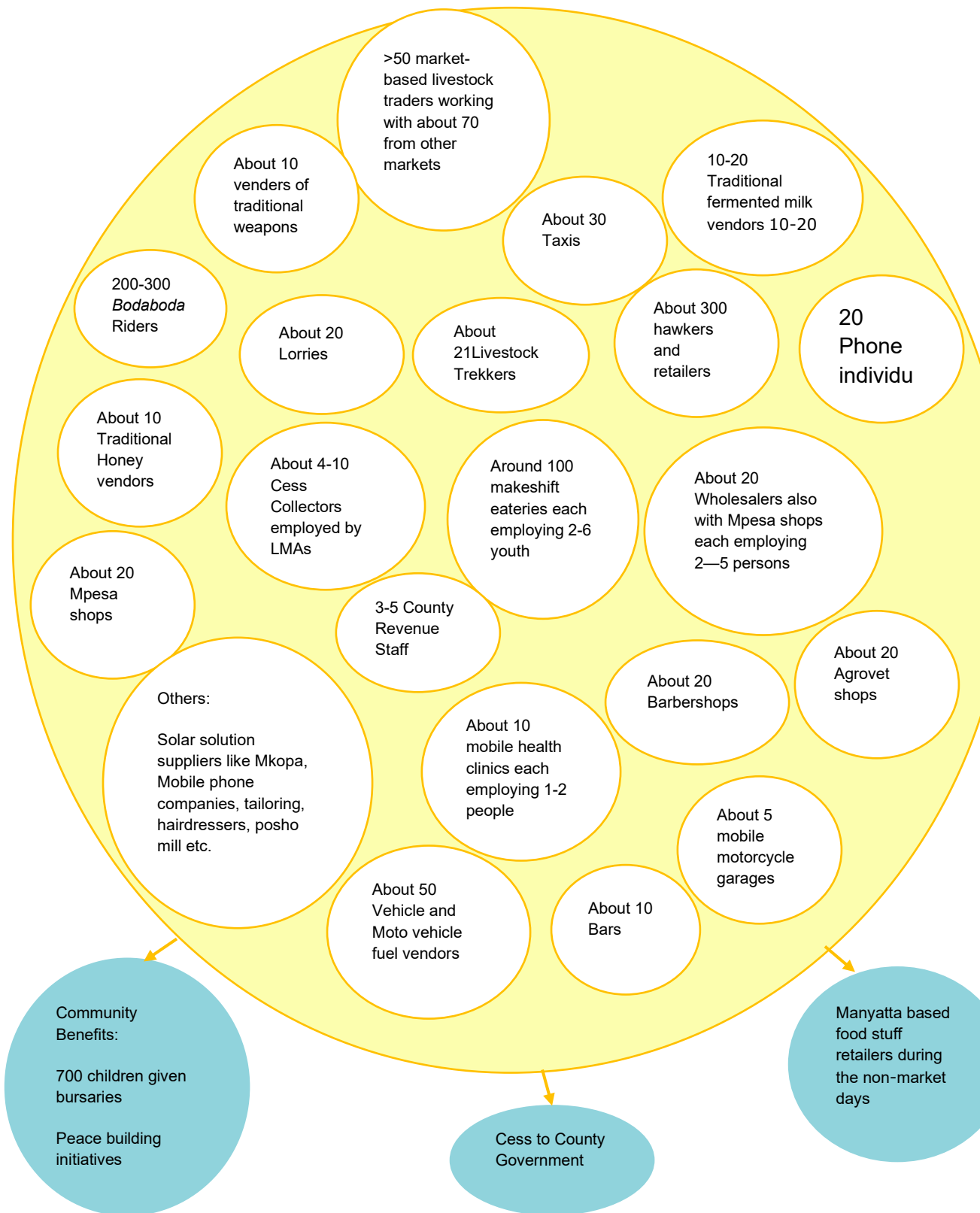


Turnover on a single market day was about KES 15 million at the time of this study. Hundreds of businesses set up for each market day, attracting 1,600 people -- excluding livestock traders and other workers. Most traders in livestock and traditional weapons were men, with women engaging in trade of other items. Merchants mainly from Laikipia and Nyandarua bring in merchandize as wholesalers, providing stock on credit to the women petty traders. At the end of the day, the women reconcile the stock and pay for sold goods. Any unsold stock is returned. This arrangement, based on trust, allows women in Lekuru to trade without capital. A single trader can earn KES 2,000-5,000 on a single market day, which allows them to buy goods and services within the same complex, thereby increasing circulation of money at the market. Women with relatively more capital also purchase stock to sell between market days.

This case of Lekuru shows that creating jobs at livestock markets requires:

- Market infrastructure to manage livestock trading
- Effective market governance to provide an enabling environment for the traders both at the market and as they leave the markets
- Organized market days to facilitate effective livestock trade flows
- Effective private and public partnerships to manage the markets

- Internal self-regulation mechanisms that enable local traders, especially women, to trade through informal partnership with visiting merchants.



**Fig 20: current employment creation within a livestock market**

### Slaughter services

Slaughterhouses serve the local consumer market and require few workers. The new Nomotio abattoir in Samburu, financed by the EU through the IDEAS project, will be able to slaughter 50 cows and 200 goats or sheep per day. Nomotio can create more employment through shift work, assuming the county uses an effective business model. Turkana's Lomidat slaughterhouse has closed. The county could restore the jobs lost there by reviving the businesses. Discussions are underway for KMC to take over Lomidat.

### Butcheries

Butcheries are small-scale but profitable businesses. The County Livestock Management Council is promoting this model in Turkana.

### Strategies for strengthening the livestock subsector

1. Introduce market-oriented production systems, for example, livestock finishing or fattening businesses that could use crop by-products to feed livestock.
2. Invest in infrastructure like watering points to minimize the impact of droughts
3. Create new models for operating abattoirs
4. Strengthen Livestock Marketing Associations to support underperforming markets and capitalize on the growth potential of the well-operated markets.
5. Build market infrastructure
6. Improve security
7. Support traders to access financing to scale up their businesses
8. Improve traders' business skills and financial management
9. Develop community-based peace and security mechanisms
10. Improve quality of livestock by training herders on market-oriented production
11. Introduce support enterprises like hay stores to feed animals that stay longer at the markets

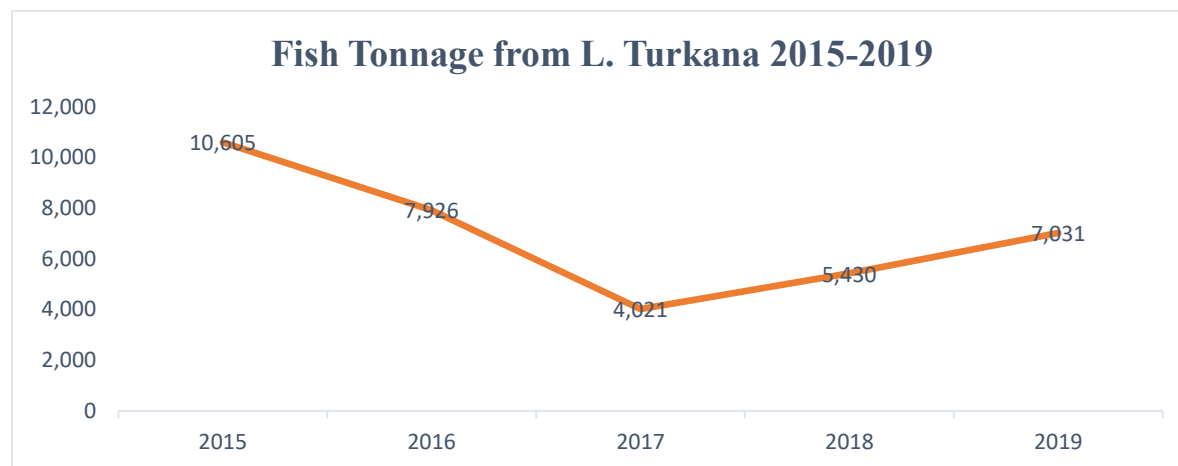
## **Agriculture Sector: Fisheries in Turkana**

### Size of the Sub Sector in Turkana

Smarter and sustainable exploitation of the fish stocks in Lake Turkana could be a job creator. Lake Turkana is the second-largest producer of freshwater fish, after Lake Victoria, according to KNBS. In 2019, the lake produced 7,031 metric tons of fish, or 6% of Kenya's freshwater catch. Output fell sharply from 10,605 tons in 2015 to 4,021 tons in 2017, but rebounded to 7,031 tons in 2019, provoked, according to sources at the lake, by the construction of the Gibe III

*PARTICIPATORY LABOR MARKET SYSTEMS ASSESSMENT IN SAMBURU AND TURKANA COUNTIES*

hydroelectric project and Ethiopia’s River Omo dam. Natural geological processes within the lake caused the turnaround. Fisheries support 4,522 households in Turkana, or about 3% of the county’s total, representing 25,323 people. The portion is higher in Turkana Central (7%) and North (12%). About one-quarter of farming households in both sub-counties depend on fisheries. An estimated 7,000 people work catching fish, and 6,500 as fish traders (Turkana CIDP 2018 – 2022). Other jobs include fish processing and value addition, grading, packaging, and loading. Figure 22 shows employment at the lakeside.



**Fig 21: Fish catch in Lake Turkana 2015 to 2019. Source KNBS, Economic Survey, 2020**

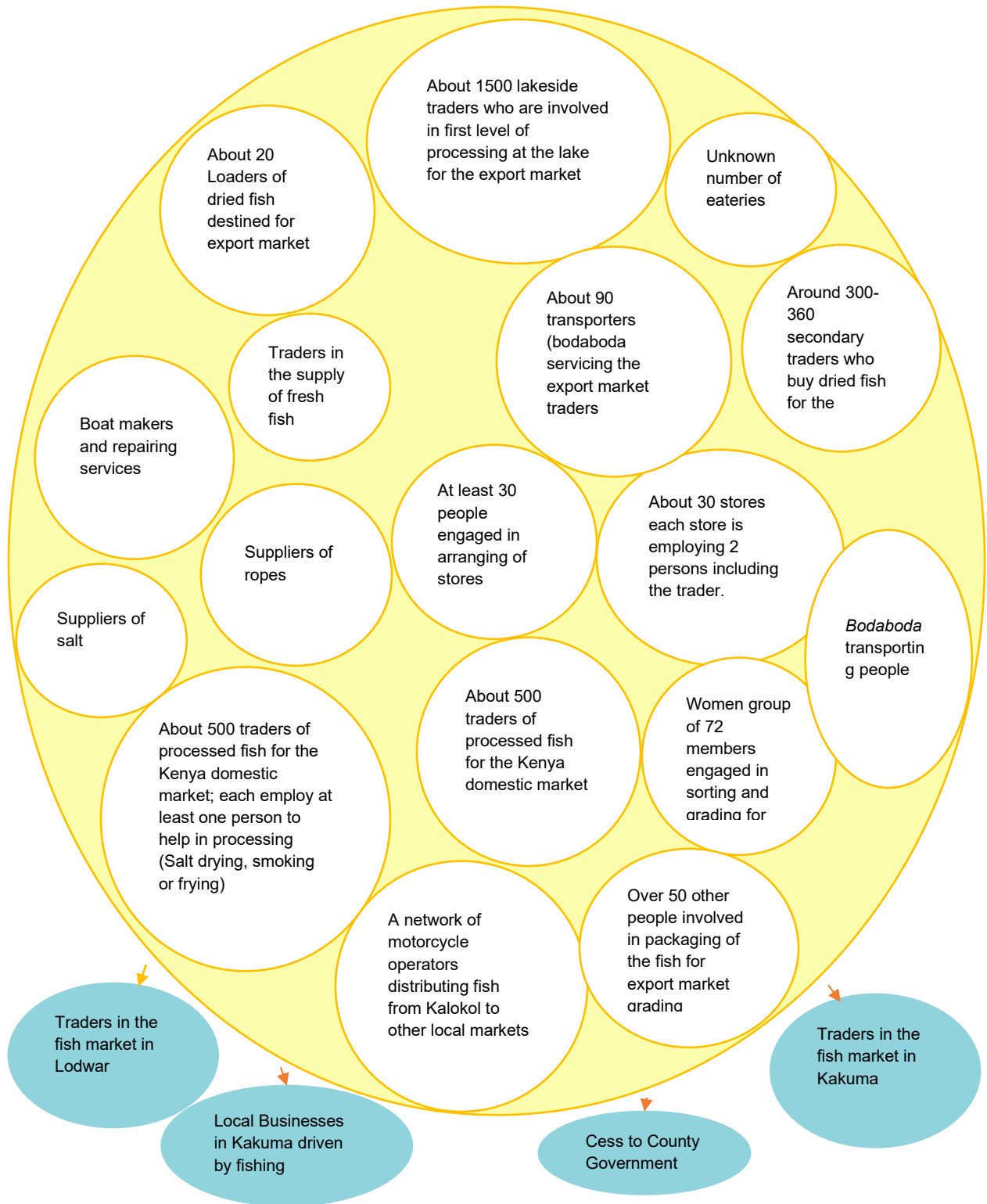
#### Relevance and Feasibility of Fisheries Sub Sector to the USAID Nawiri Target group

Fisheries are important along the shores of Lake Turkana from the Kenya-Ethiopia border, to Ferguson’s Gulf, all the way to Kerio. Fish are marketed domestically and for export. Congolese firms are major players. They advance money to local agents to buy dry salted fish. The agents in turn work with a network of secondary agents and middlemen to achieve required volumes.

Domestic markets are split, with processed fish dominating fresh catch. Fresh catch are sold to women for scaling and then sold on for processing, which includes frying, smoking, and salt drying as part of a system with little formal organization.

Processed fish are destined for major towns in Kenya, transported by trucks for long distances and by bodaboda operators over shorter routes. One motorcycle can carry around 100 kgs worth KES 2,000 at least 2-3 times a week. Each trader of dried fish at Kalokol is linked to brokers in the destination markets.

The fresh fish market is relatively small, targeting Nairobi, and transported by refrigerated vans.



**Fig 22: Jobs within the fishing ecosystem**

## **Growth Potential and Drivers**

The full potential of the fisheries sub sector is far from being exploited. Fish production is just 28% of the 25,000 tons that the County Fisheries Department estimates could be caught. While low catch rates mean a sector that has yet to be fully exploited commercially, as a communal resource the lake remains of value to the community, due to the belief that the entire county can benefit from fisheries as an alternative livelihood option during the dry season. This communal ethos has yielded an informal mechanism for sustaining fish populations. Interviews during this study established that communities prefer less intensive methods to avoid overfishing, discouraging, for example, the use of heavy motorized boats to avoid depleting the lake of fish.

According to Carr, J.C, (2017),<sup>19</sup> massive migrations in 2007 and 2010 saw stock owners and even entire villages turn to fishing as a last resort for survival. Interviews revealed some people, often young, come just for the dry season, turning to fishing because it remains a relatively easy skill to learn. Once the dry season is over and money is remitted to their families in the pastoral zone, they return to their former livelihoods.

## **Constraint to Growth of Sub Sector**

Low catch rates are blamed on strong winds, poor fishing methods, lack of motorboats, and poor post-catch facilities to clean fish. Interviews also found that communities prefer less intensive methods to avoid overfishing. Boats and equipment are mainly made or supplied from outside the county, but interviews found a lack of interest in boat building, save the paint work which earns KES 3,000 per boat. Other challenges noted was lack of fishing equipment for the fishermen. The Turkana HEA report by Save the Children (2016) reported a direct positive relationship between ownership of fishing equipment and the number of fish caught. People who couldn't afford the gear could only provide casual labor, rather than catch fish.

### **Strategies to increase employment creation**

1. Improve packaging materials, transportation logistics, and better communication throughout the value chains; use of fishing gear and drying technology, for instance drying racks.
2. Organize associations to shift from competitive to more collaborative horizontal and vertical relationships through collective action and contracts. This will eliminate or reduce the high number of brokers who are currently exploiting the fisherfolk.
3. Facilitate linkages between financial services and actors at the beach

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<sup>19</sup> Carr, J.C, 2017: River Basin Development and Human Rights in Eastern Africa — A Policy Crossroads ISBN 978-3-319-50468-1 ISBN 978-3-319-50469-8 (eBook); DOI 10.1007/978-3-319-50469-8; Library of Congress Control Number: 2016959399



4. Promote a savings culture through group Village Savings and Loan Associations (VSLAs) and teach financial literacy
5. Provide business management training (pricing and costing skills) among the traders
6. Provide training on various aspects of fishing, including harvesting and post-harvesting practices such as proper handling under low temperature to safeguard quality and food safety. Training on fish quality grading systems is also important.
7. Strengthen the governance of the beaches to ensure efficiency and an enabling environment for the businesses to thrive.
8. Support pastoralist migrants to develop fishing skills to adapt to the new livelihood system.

## **Agriculture Sector: Crop Farming/Agro-pastoralists**

### **An Overview of Agro-pastoralism in Turkana: Size of the Sub sector**

Crop farming is dominated by irrigated agriculture along the Turkwel and Kerio rivers. River Turkwel is permanent while Kerio is seasonal. Riverine areas are under pressure as people leave pastoralism, but the availability of water for irrigation presents immense opportunities.

Agriculture supports 14,240 households, which translates to 9% of all households and 23% of farming households. That means 79,744 people benefit from crop farming (KNBS). Another 20% of the population practices agro-pastoralism (Turkana County SMART Survey, 2019).

### **Relevance and Feasibility of Crops Sub Sector to the USAID Nawiri Target group**

Most crops are irrigated in the Kerio and Turkwel river basins. Figure 24 presents the distribution of households along these two rivers. The Turkwel basin crosses Turkana South, Loima, and Turkana Central. The Kerio basin crosses Turkana East. Other small irrigation schemes are found along the Tarach and Malimalite rivers. There are 51 irrigation schemes along the two rivers that utilize surface, spate, and drip technologies (Figure 24)<sup>20</sup>, developed through partnerships with the National Irrigation Board, World Vision Kenya, Catholic Diocese of Lodwar, WFP, NDMA/UNDP, FAO, Kenya Red Cross Society, FID, and Child Fund Kenya. According to the HEA report by Save the Children (2016), households along the riverine zones include agro-pastoralists with irrigated farms alongside displaced pastoralists. The county has yet to fully exploit flood irrigation. The main crops grown are maize, sorghum, green grams, cowpeas and other horticultural crops.

The National Irrigation Board's projects aim to harness surface water that could irrigate up to 33,000 acres using both perennial rivers and water harvesting for micro-irrigation<sup>21</sup>. The project

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<sup>20</sup> Turkana County CIDP, 2018-2022

<sup>21</sup> <https://www.irrigation.go.ke/projects/turkana-irrigation-development-programme/>

also plans to drop boreholes to use groundwater in aquifers for center pivot and drip irrigation. NIB reports that the Lotikipi aquifer alone has renewable, if slightly saline, water amounting to 3.224BCM/year: enough to irrigate approximately 425,000 acres.

Project	Acres	farmers	Crops grown	status
<b>Katilu</b>	2000	2500	Maize, green grams and sorghum	Under production
<b>Lokubae</b>	2445	7322	Maize, green grams and sorghum	Under production
<b>Elelea</b>	2000	600	Maize, millet & horticulture	Under production
<b>Morulem</b>	1800	1000	Maize, millet & horticulture	Under production
<b>Naipa lot 1</b>	910	1736	Maize, millet & horticulture	Under production
<b>Naipa lot 2</b>	910	1736	Maize, millet & horticulture	Under production
<b>Lotikipi</b>	20	80	Maize, millet & horticulture	Under production
<b>Total</b>	10,085	14,974		

**Table 15: Turkana Irrigation Development Projects.**

Source: <https://www.irrigation.go.ke/projects/turkana-irrigation-development-programme/>

Only about 10,000 hectares are currently irrigated against a potential of 37,500 hectares (CIDP 2017-2022). This contributes to the need to import even basic foodstuffs to Turkana. The county requires 70,300 tons of maize a year but produces only 18,000 tons.<sup>22</sup> Yields currently sit at 5-8 bags per acre of maize, but NIB reports that high-yielding varieties yield up to 20 bags per acre. This is due to:

- a) Poorly developed input markets. Most inputs are bought from Lodwar agrovets, Kitale, and sometimes Eldoret. Farmers usually place orders to agrovets in Kitale, pay via Mpesa, and then Public Service Vehicles (PSV) deliver them. Local youth ferry the inputs from the PSV to the farms on motorcycles: a process that increases costs. Some schemes like Kalemunyang have won donor and government support. Farmers worry about the quality of inputs, especially agrochemicals, which are exposed to high temperatures. Local agrovets in Lodwar

<sup>22</sup> Emuria, H.W; Factors Affecting Farm-Level Efficiency in Irrigation Schemes: A Case Of Turkana South Sub-County; A Thesis Submitted In Partial Fulfilment Of The Requirements For The Award Of A Master Of Science In Agricultural And Applied Economics, University Of Nairobi, 2017

are mainly start-ups with unqualified staff and with limited stock, prompting worries that farm chemicals might be mishandled or adulterated.

- b) Invasive Mathenge plants reduce the land available for farming.
- c) Salinity of water, hurting crop yields and quality.
- d) Lack of technical skills around modern farming techniques and use of machinery. For instance, in Kalemunyang, some groups have received farm machinery but don't know how to operate and maintain it.
- e) Lack of mechanization.
- f) Seasonal changes in production since most farmers are still pastoralists.
- g) The Kerio River dries up seasonally, halting irrigation.
- h) Inadequate capital to invest in farming, from farmer level to scheme management.
- i) Despite efforts to link farmers with banks, banks are only in towns.
- j) Inadequate investment to expand irrigation. The demand is higher than the rate of opening new lands for irrigation.
- k) Lack of adequate post-harvest handling facilities (stores, drying floors etc.) leading to post-harvest losses.
- l) Most farms are not fenced leading to conflicts between livestock and crop farmers

#### Marketing challenges:


Although Turkana depends on other counties for food supplies, locally produced goods face challenges in the local market. This reflects certain inefficiencies as listed below:

- a) Farm gate prices are almost as high as prices in Lodwar, reflecting a poor understanding of pricing.
- b) Few farmers understand how to plan their planting to capture the best prices. Usually, all the farmers grow a single crop at the same time, failing to understand market trends.
- c) Low volumes make it too expensive to transport to markets outside their localities.
- d) Farmers don't produce consistently, so traders don't trust them.
- e) Neither farmers nor irrigation schemes have effective institutions. Even decades-old irrigation schemes still rely on outside support. Some farmers still see themselves primarily as pastoralists, rather than commercial farmers. Irrigation schemes often lack leadership, financial management, and organizational skills. Political interference also takes a toll.

#### Overview of agro-pastoralism in Samburu

##### **Size of the Sub Sector**

Crop farming is mainly rainfed in the agro-pastoralist zone of Samburu Central. Samburu is chronically in food deficit, and only 8% of its land is arable. A total of 13,814 households are involved in crop farming, or 21% of all households or 32% of farming households. About 21% of the county's population, or 64,926 people, depend on crop farming. The main crops are maize,



beans, wheat, barley, millet and pyrethrum. The sector employs many women and youth, through county interventions (Samburu CIDP 2018-2022).

Samburu has both large and small-scale farms. The climate of the agro-pastoral zone is conducive for commercial wheat, barley, maize, and horticulture farms, and vibrant agribusiness could be a huge job creator. There is an acute need to teach agribusiness, specifically as relate to short-season crops like vegetables that generate revenue faster. Commercial farming would require more support services like mechanization services, spraying services, post handling facilities and equipment. Market linkages could be created by supporting community-based aggregators who are then linked to other market actors.

The ongoing land subdivision in Samburu could trigger greater investment in agriculture and encourage pastoralists to settle if they are giving meaningful support to ease the transition to settled life away from animal husbandry. Crop by-products could feed livestock, encouraging more intensive livestock farming. However, there is not a single institution in Samburu that offers practical training in agriculture. USAID Nawiri should explore partnerships to offer training to aspiring agripreneurs, farm managers and farm service providers.

#### Types of employment in agro-pastoralism

Crop farming creates high demand for unskilled labor. In Katilu, 3,000 households directly depend on the irrigation schemes, employing 15,000 people to provide unskilled labor. Kalemunyang has 1,000 farmers in the 500-acre scheme employing 3,000 unskilled laborers, while Turkwel employs 1,500 people. Unskilled labor is paid KES 250-400 per day. Those who do the watering are paid an average of KES 500 per day. For irrigated farming, crop production has potential to offer year-round employment. Youth can find employment as workers, or as farmers on family or leased land.

#### Strategies for increasing labor absorption capacity in the agro-pastoral livelihoods

Crop farming could generate more jobs, especially for youth, if the sector is commercialized. Strategies to improve efficiency and productivity could include:

1. Diversified production to meet market demand, informed by market assessments.
2. Organization of producers for planned production, informed by market trends, while supporting joint marketing and market linkages
3. Establishment of markets in production areas like Kalemunyang town to enable more trading and to attract non-local buyers
4. Market research to advise farmers on what to produce at what time of the year
5. Development of input supply system to farmers
6. Enforcement of rules governing use and handling of agrochemicals and well as control of inferior or adulterated products
7. In Turkana, uprooting prosopis trees on irrigation farms using heavy machinery

8. Exploitation of opportunities for additional water supply like dams to take care of seasonal water shortages, especially on Kerio River.
9. Skill building and vocational training including:
  - a. For farmers – agronomic practices; farming as a business; financial management
  - b. For cooperatives/marketing institutions: Leadership, governance, entrepreneurship; group dynamics among others, marketing skills
  - c. For irrigation schemes management: Leadership, financial management; marketing skills, networking skills
10. Gradual introduction of mechanization and training on its operation and maintenance

### Beekeeping

Demand for honey in Kenya is growing among health-conscious middle- and high-income consumers who are moving away from sugar. Bees like the naturally growing rangeland shrubs in the ASALs, making beekeeping a viable alternative livelihood for pastoralists. Despite its potential, beekeeping is poorly developed, especially in Turkana.

### Samburu

Hives in Samburu dropped 8% from 21,057 to 19,325. Hives in Samburu Central increased by 65%, while East and North experienced drops of 2% and 3%. The pattern follows the livestock population trend, affected by droughts in the East and North, which may have resulted in poor hive occupation. Traditional beekeeping gives little supplementation during periods of water scarcity. Samburu Central, on the other hand, has a more favorable climate for bee forage and has continued to attract farmers' interest. This implies that beekeeping in pastoral areas requires new techniques, with modern hives and supplementation during droughts.

Some honey is sold to brokers. Other farmers sell honey at livestock markets, boosting honey sales. Livestock traders remain the target market for local producers, but the low scale of production currently does not offer much scope for growth and employment creation.

Four beekeeping cooperatives collaborate in processing and marketing honey in bulk: two are in Samburu Central, one dormant one is in Samburu East, and one in Samburu North. The Maralal beekeeping cooperative in Samburu Central has 54 beekeeping groups. The sector currently employs more than 1,260 farmers who are involved in direct production, according to the association records.

### Turkana

Beekeeping in Turkana has shrunk, with hives dropping from 32,581 to 2,045 (KNBS, 2009, 2019), a 93% reduction, possibly due to migration and droughts. Currently, two beekeeping cooperatives are quite established and processing honey, one in Loima and the other in Turkana South. The county has committed KES 45 million to revitalize beekeeping. The county should

carefully map out which ecosystems are favorable for honeybees. Riverine zones would be most favorable, but the use of farm chemicals could destabilize the bees and affect the honey.

### Constraints on beekeeping

1. Honey production peaks during the rainy seasons and dips during the dry seasons, but modern bee management can mitigate the variation.
2. According to the cooperatives, brokers go down to manyattas to source honey at very low prices, taking advantage of the lack of established collection centers.
3. Poor roads in the interior delay supplies, taking five days to travel a distance that would take one day elsewhere.
4. The high cost of producing honey makes it expensive to outside markets.
5. Equipment mainly comes from Nairobi and Thika, for the farmers who have ability to buy the modern hives.
6. Grassroots producers lack management skills and equipment. Poor honey harvesting techniques and use of traditional production methods lead to low yields.

### How beekeeping can create employment

- Mobilize existing honey producers and groups to create awareness of beekeeping’s potential
- Train producers on modern hives, how to control pests and diseases, feeding bees during the dry period, quality management of honey from production to marketing
- Train leaders of beekeeping groups on governance, financial management, conflict resolution and negotiation skills
- Support in the equipping of producers to process quality honey in line with the market demand
- Link producers, through their groups, to manufacturers of modern and traditional hives in order to increase production
- Facilitate linkages between the producers with end markets
- Encourage county governments to promote local honey at trade fairs and expos.

### Poultry keeping

Eating and producing poultry was considered taboo among nomadic pastoral communities; it has only been since pastoralists have shifted to more settled lives that poultry production and consumption has become more popular. It therefore remains a marginal asset, and value chains are poorly developed. In Turkana, indigenous chicken populations fell 74%, and production of commercial layers and broilers fell 34%, following the pattern seen with other livestock. But in Samburu, indigenous chicken numbers more than doubled, by 151% with a 48% jump in commercial layers and broilers.

Type of poultry	Turkana	Samburu
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	2019	2009	% Change	2019	2009	% Change
Indigenous Chicken	43,158	165,349	-74%	94,825	37,749	+151%
Commercial	10,160	15,444	-34%	7344	4,962	+48%

**Table 16: Poultry in Turkana and Samburu, 2009-2019.**

**Source: KNBS 2009, 2019**


Despite the trends, poultry in Turkana could become more popular as large livestock are harder to keep due to climate change, prompting greater acceptance of chicken as a source of food and jobs. Women, youth and people with disabilities can more easily raise chicken and tend to have exclusive rights to make decisions on poultry production and marketing, as men tend to dominate decisions around large stock like cattle, camels, and goats.

Donor-funded projects are initiating indigenous poultry rearing in Turkana, constructing chicken coops, providing initial batches of chicks and support with incubators, feeds and inputs as well as establishing management plans. Most of these projects, however, have proved unsustainable after the donor exit. An evaluation of one project reveals lessons on designing poultry interventions:

- a) Most of the chicks are brought in from Naivasha or Nairobi, and suppliers see long waiting queues. Without an easier supply, producers usually abandon the projects
- b) Fully funded enterprises are largely unsustainable, because the community does not have any ownership. The projects are often owned by groups, which in most cases are weak and formed for the sole purpose of accessing donor support.
- c) No service providers are in place, especially poultry vaccinators. Entire flocks die of disease.
- d) Communities didn't fully learn the necessary skills, so laying percentages were as low as 40%. Many of the flocks died off due to poor care.
- e) Producers didn't find a market for the birds due to poor linkages and a lack of marketing skills.

**Samburu County**

Few donor projects supported poultry in Samburu, where almost every household already keeps indigenous chicken for eggs and meat, selling any surplus. Indigenous chickens scavenge for food and water so the system is not dependent on external inputs. Most farmers feed them extra maize and other food stuffs during periods when households have enough to eat. During periods of food scarcity, birds are sold. But during those periods, the birds are scrawny and fetch prices as low as KES 250. The cost of food at those times is very high. Surplus produce (live birds and eggs) is mainly sold in the livestock markets.



Jobs potential in poultry is constrained by an undeveloped inputs and service delivery system. Without disease control systems, sick birds are treated with herbs, mainly crushed aloe vera leaves mixed with water. In some cases, birds do recover after herbal treatment. Producers noted that seasonal disease outbreaks wipe out entire flocks. The common signs described were indicative of New Castle Disease. Some farmers get prescriptions from agrovet shops after describing the disease symptoms to shop attendants. Producers said that even with the agrovet drugs, the birds continued to die, which meant that farmers reverted to herbs. Poor housing and breeding practices lead to high mortality of chicks, predation and low productivity associated with inbreeding.

The marketing chain is short as producers usually take birds to market whenever they need cash. This is usually done by women on market days. In the markets, birds are mainly bought by brokers or traders from nearby markets. Some market brokers take chickens home for further rearing and later selling at higher prices. Samburu is surrounded by a large market for indigenous poultry, including Meru, Isiolo, and Nyahururu. Demand for eggs outstrips supply. For instance, in Samburu West, Wamba Mission Hospital and the nursing school in Wamba town buy eggs from Isiolo and Nanyuki, because they can't buy enough eggs locally. This is an opportunity for local communities, especially those that are dropping from pastoralism, to find self-employment, generate incomes, and still have access to high quality protein.

#### Intervention strategies:

##### In Turkana:

- Obtain chicks locally, not from hatcheries, to build flocks. Farmers can upgrade their local chicken using improved cocks, or by purchasing good-quality cocks from counties with well-developed indigenous chicken.
- Use local resources to make poultry feed. Riverine zones can use crop by-products. Fishing areas can use fish meal. Prosopis pod can also be used. An assessment in pastoral zones could reveal the opportunities there.

##### In Samburu:

Scale and commercialize indigenous chicken by improving management, upgrading with superior cocks, and developing marketing institutions and market linkages.

##### In both Samburu and Turkana:

- Disease control is critical, including access to vaccines, community-based vaccinators, as well as a year-round plan developed in a participatory manner.
- Both should start as pilots in different livelihood zones to develop a working model that could be scaled up by other actors.



## **Basketry, beading and beadwork**

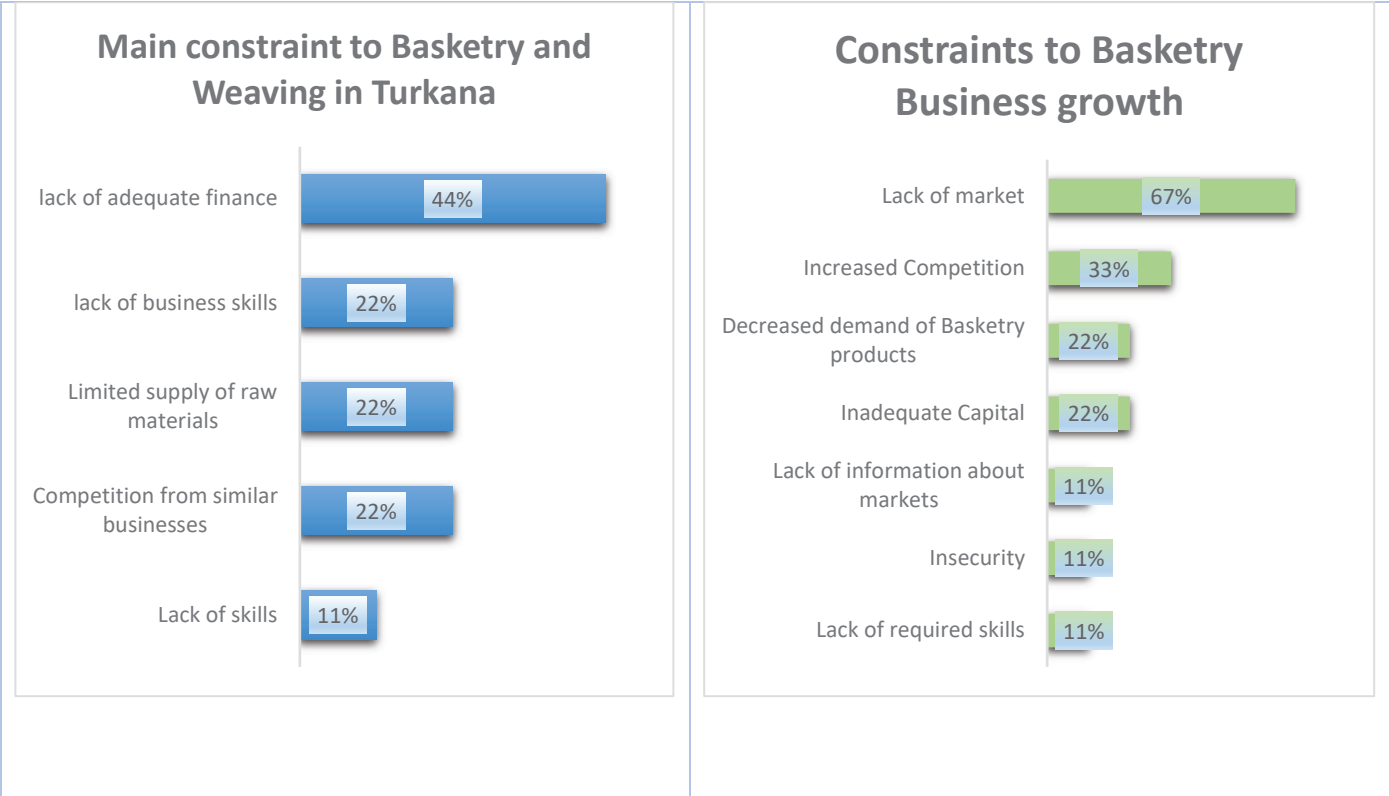
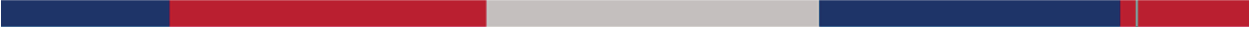
### **Basketry in Turkana**

Products include baskets, mats, hats, milk containers, brooms and ornaments. According to the most recent Turkana CIDP, basketry is rated as the fourth income earner, accounting for 4.9% of incomes in the county. Citing Omolo, the CIDP states that in Kapua ward, basket weaving generated incomes for 40% of women and 27% of men. The basketry value chain is quite short, largely unstructured, and dominated by women.

Baskets are woven from palm fronds of trees that naturally grow along Lake Turkana and the banks of the Kerio and Turkwel rivers. Women usually walk together to collect the fronds, and then weave individually in their homesteads. Women sell the finished products to Lodwar-based traders at a wholesale price, either directly or through brokers. The traders largely depend on the local market, Kenyan visitors, and tourists. Distorted pricing disfavors producers. In most cases, retail markups are more than 100%. In this study, producers sold at KES 700-800, while retailers sold them on at KES 1200-1500. Online stores show that the same basket selling at USD 42.<sup>23</sup> Traders and producers cited lack of adequate finance as their main constraint, as shown in Figure 25. A closer look reveals three interrelated constraints, all pointing at market access: lack of market, competition, and decreased demand.

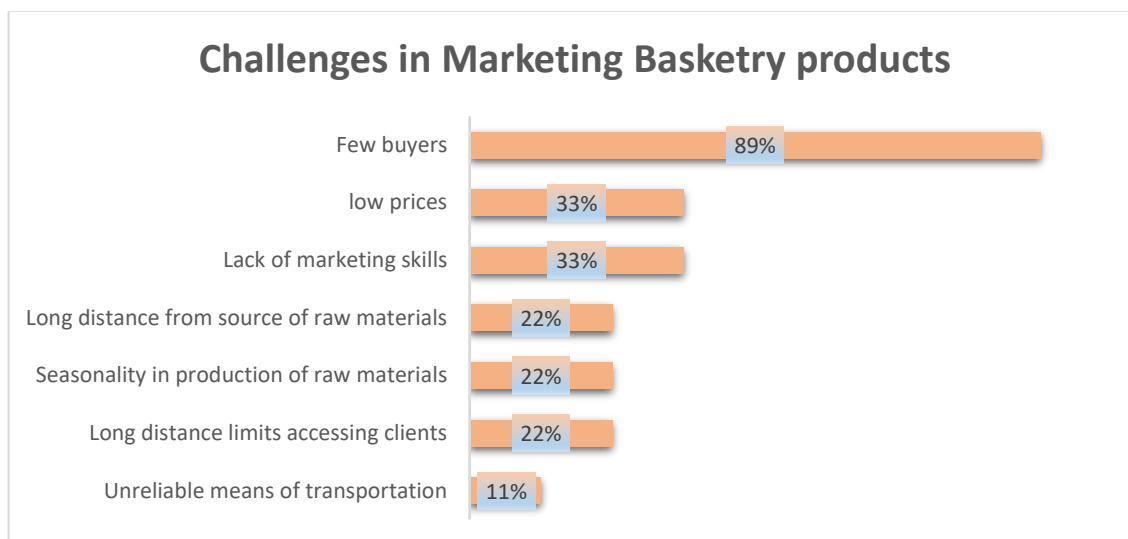
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<sup>23</sup> <https://basketsandbeadskenya.com/collections/the-turkana-collection/products/turkana-tote-shopping-basket-with-handle>



**Fig 25: Challenges facing basketry value chain in Turkana**

These findings show traders are poorly linked to external markets. At least 67% of producers and traders interviewed sell to buyers within their wards, while 33% sell to buyers outside the wards but within the county. Some 33% depend on local market participants, while 22% sell to neighbors. Only 11% sell to buyers outside the county. Limited linkages to end market buyers and lack of skills leads to little differentiation of products, which heightens competition. The main challenge in marketing is lack of buyers as shown in Figure 26.



**Fig 26: Challenges in marketing basketry products**

Limited market opportunities and distorted pricing means that incomes earned from basketry are quite dismal, averaging KES 2,625 per month. Available information shows that there is still high demand for the home décor products like basketry in the international market, meaning that there is room to explore how to release employment creation potential in this value chain – especially for women..

### **Relevance and Feasibility of Basketry Industry to the USAID Nawiri target beneficiaries**

Basketry is relevant to the USAID Nawiri target group because it provides an alternative source of income within the riverine/agro pastoral/fisheries mix. The industry is easily embraced by the local community and the county government because it builds on the culture and indigenous knowledge of the local community. Commercialization of the handicraft industry would go a long way in diversifying the livelihoods, given the diminishing role of livestock among the poor households in the pastoral areas. Furthermore, the industry enhances inclusion of women in economic activities.

### **Intervention strategies**

The following interventions are very critical:

- USAID Nawiri, in partnership with the county Ministry of Trade and Chamber of Commerce should identify and engage in Kenyan and international markets and thereafter determine their specific needs in terms of quality, designs and volumes
- Engagement with exporters to guide local producers in regard to designs, quality and product characteristics that the market requires
- Organization of traders to set up collective production and marketing centres to improve efficiency
- Facilitation of training of producers on business and marketing skills to producers and traders

- Collaboration with county government and chamber of commerce to promote the Turkana basket to other markets by participating in fairs and expos.
- Support for horizontal cooperation among producers to strengthen their bargaining power in the marketplace

#### Bead work in Samburu County:

As with Turkana, this value chain is dominated by women, largely utilizing traditional skills. Beads, wires and finished leather are the main raw materials. Most local producers purchase these from wholesalers in towns. Women who produce on a large scale, however, take public transport to Nairobi to buy supplies. Production is usually individual and time-consuming, thereby making the business largely inefficient and on a very small scale. Traders who operate curio shops and those who are connected with buyers from other parts of Kenya normally pay other women to make beads for them so they can meet the demand.

Producers based in rural areas fully depend on traditional skills and learning from one another, therefore producing undifferentiated products. Those linked to external buyers have embraced technology to develop designs. They receive orders from their clients, specifying the required designs using pictures sent via WhatsApp. The producer uses their creativity to create the desired design. When they have substantial orders, local traders teach fellow producers their designs.

Beadmakers have two sales channels. One is to sell to traders in towns, mainly Maralal and Archers Post. The other is to retail their own merchandise in livestock markets and other trading centers.

The local market is quite significant though seasonal, operating at scale during traditional ceremonies to produce the beads that are part of Samburu regalia. Local traders are poorly linked to high-paying buyers outside of the county – with foreign tourists a particularly high-value but untapped market – and must work through middlemen. Due to access restrictions of local traders to the tourist hotels in Samburu East, the traders depend on middlemen, who buy in bulk and sell in the tourist hotels. The same chain applies to Nairobi and export markets, where local traders

#### *The Samburu Beadwork Cooperative in Maralal*

In 2015, Samburu's Department of Cooperatives helped a group of women form a cooperative. The women were supported to attend exhibitions out of the county to promote their products. They later formed a savings and credit scheme for members to borrow loans at affordable rates (10% of the principle per month).

The scheme enables members to borrow money to buy inputs. At the start, the cooperative members were saving KES 200 per month. Now they are allowed to save as much as they can. In addition, they introduced an entrance fee of KES 1,000 for new members. In 2018, they were linked to Ushanga Kenya, who trained the producers to make quality beads. In addition, Ushanga Kenya has linked the group to the market. Membership has grown from 35 in 2015 to 103 today. The group said there are good prospects for the industry once they are linked to the tourist sector and international markets.

must work through a chain of middlemen. While this provides market openings, it elongates the chain and therefore reduces the margins for the producers and local traders.

This business has very high potential to create employment, according to respondents in this study. A majority indicated that the sector is growing, with some doubling their volumes of trade in the last three years. Some individual traders have grown from retail to wholesale businesses.

1. Main challenge is poor market linkages, as producers depend on the local market.
2. Quality of beads is not quite consistent with the market needs. Areas like smoothness of beads and finishing have been a key deterrent to customers.
3. Weak capacity of the cooperatives in areas of recordkeeping, business management and marketing skills. Samburu has 15 beadwork societies, one per ward, with assistance from the Department of Cooperatives. Most of the cooperatives are relatively new. They are yet to learn how to do business as a group or to embrace collective production and marketing.
4. Lack of financial management skills among the producers, including savings, in order to get loans. Some producers don't want loans
5. Tools and equipment for beadmaking are lacking. They must travel to Nairobi to buy items like leather belts, which would require tools and equipment to make locally. Leather belts are used to make beaded belts, usually in high demand. Local production is limited by lack of tanning equipment.
6. Insecurity for the women traders, whose lack of agency within the communities means that theft of their wares goes unanswered.
7. Lack of adequate capital for local traders to enable them supply to outside markets. Some are linked to SACCOs, but their low savings make it hard to get substantial loans.
8. Covid-19 highlighted the impacts of shocks to businesses linked to tourism. Most women supplying local tourist hotels lost businesses and are yet to recover. This brings out the need to embrace digital marketing to cushion the small businesses and build resilience in the longer term. NRT Trading is an example of a case where the local producers are supported to sell their products to the international markets through a digital platform, the beadwork website(<https://beadworkkenya.com/>)

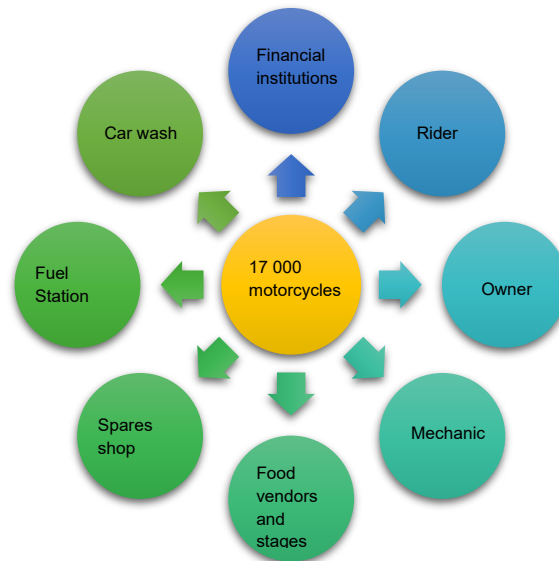
## **Transportation**

Transportation can be split into motor vehicle transport, public transport, and cargo transport. Cargo dominates in the towns of Lodwar and Maralal. Motorcycles, referred to as *bodaboda*, employ the most youth, while also supporting businesses by providing affordable transport for people, according to stakeholder meetings.

According to the KNBS, 9.2 % of households, or 1.1 million households, own a motorcycle nationwide (KNBS, 2019). Ownership is more likely to be rural than urban, although these numbers do not reflect the total number of motorbikes operating across the country. The industry

estimates that 1.6 million *bodabodas* transport 22 million Kenyans per day<sup>24</sup>. The concentration of motorcycles in rural areas indicates their crucial role in regions with poor roads and few transport options.

In the 2019 census, at least 6.5% of households, or 4,157 households, in Samburu had motorbikes. In Turkana, 4.8% of households, or 7,806 households, had them. Industry estimates Turkana has 17,000 motorbikes, which sustain jobs as shown below:



**Fig 27: Jobs created in the bodaboda sector**

### **Relevance and Feasibility to USAID Nawiri Target group**

Engagement in interventions related to *bodabodas* is of high potential to USAID Nawiri because of the potential to employ youth. There is limited information on socio-economic characteristics of *bodaboda* work, which could inform targeting of interventions, is presented below:

**Age:** A majority (62%) of respondents were 25-35. Only 15% were older than 35. The trend is seen in both counties. In Turkana, 59% *bodaboda* operators were age 25-35, while in Samburu 67% fell in that age group.

**Marital status:** A large majority of *bodaboda* operators are married with at least one child. Overall, 87% were married (75% in Samburu and 93% in Turkana), while 85% had at least one child (67% in Samburu and 93% in Turkana). On average, Samburu homes had three children,

<sup>24</sup> Stakeholders workshop

two of them younger than five, while in Turkana homes had an average of four children with two of them younger than five.

**Education:** Formal education levels are low. In Samburu, none had any tertiary schooling, and half had only finished primary school. In Turkana, on 28% had finished high school, and 21% had no formal education at all.

**Incomes:** Average monthly income were KES 12,530, with those in Samburu earning more (KES 15,028) than in Turkana (KES 11,336).


### **Constraints Limiting Growth of the Industry**

Despite the benefits brought by motorcycles, serious constraints and concerns were also raised.

1. Most riders do not have licenses, nor first aid skills in case of accidents. *Bodaboda* associations estimate 15-28% of riders have licenses, while the survey put the number at 15%. This poses a risk to public safety. Majority of associations cited accidents as a major challenge, as they leave drivers unable to work and draw claims from customers.
2. County governments do not invest in supporting *bodaboda* enterprise, failing to erect sheds or designate specific *bodaboda* paths to avoid accidents.
3. The *bodaboda* market is nearing saturation
4. Most towns have *bodaboda* associations that providing informal savings and credit schemes and advocacy with government. Some also run car washes, garages and spare part shops. The associations don't have formal business skills and do not employ qualified management or bookkeepers. This many hinder their growth and leave them at risk of mismanagement.
5. Most operators get high-interest loans from the dealers, which makes the cost of entry high. Savings and credit schemes run by associations could provide an alternative. Some associations are considering whether to become SACCOs. This highlights the need for business and management skills.

### **Strategies for increasing *bodaboda* employment potential**

- Offer governance, leadership and business training to associations so they can develop business plans and take on more dynamic roles.
  - Partner with trainers like St John ambulance for first aid and safety skills
  - Partnership with NTSA to enforce traffic rules, including driving licenses
  - Conflict resolution between members and clients
  - Encourage enabling environment at county level
  - Human resources management for *bodaboda* owners who have hired riders
  - Assist in the transition to become SACCOs with subsidiary businesses, preferably employing professional managers.
  - Alert *bodaboda* operators, through their associations, to insurance schemes like the NHIF and personal accident cover as risk mitigation strategies.



## Construction

Real estate and construction have led economic growth in Kenya for the last five years<sup>25</sup>. Construction contributed 5.6 percent of GDP in 2019, as the industry grew by 6.4% that year. Total government spending on roads was expected to rise to KES 169.9 billion in 2019/20, up 10% from the previous year.

### Drivers of growth in construction sector

Construction is among the fastest-growing sectors in the two counties, due to urbanization fueled by devolution and a growing middle class. With devolution, the counties are building dispensaries, schools, and offices, while the national government together with counties is building dams and roads. In addition, urbanization and devolution has led to more private development, including office buildings, housing, factories, and training centers.

Jobs in the sector run from raw material supply to actual construction work and maintenance. Figure 26 shows the many jobs that are directly created by just one site. Ripple effects include transport, informal markets, and extraction of natural resources like sand and building stones. Extractive industries are projected to create 6,000-15,000 new jobs directly and support an additional 42,000-98,000 indirect jobs in 10 years<sup>26</sup>.

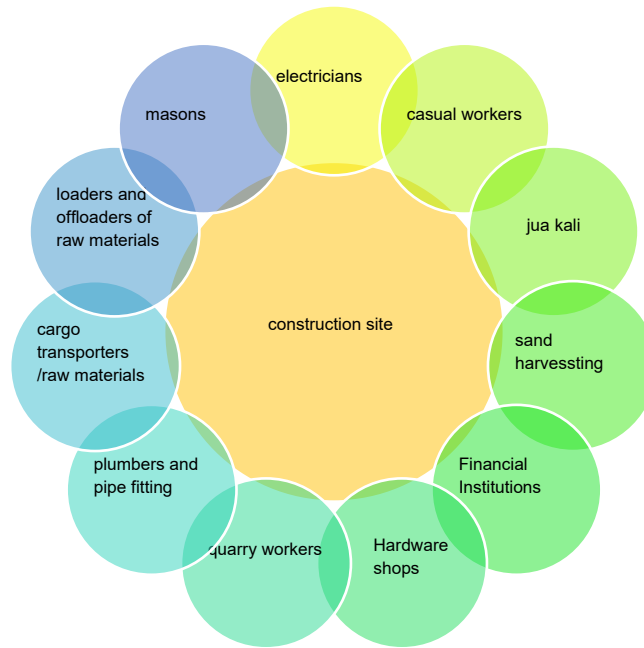
Construction's role in creating employment is linked to neighboring counties. For instance, sand harvesting in Archer's Post supplies construction in Meru with an estimated 105,000 tons annually worth KES 30 million to the community and KES 1 million to the county government. Construction nationwide also affects the county, as companies who train workers locally could re-assign them elsewhere.

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<sup>25</sup> Kenya national Bureau of Statistics 2020 Economic Survey

<sup>26</sup> Turkana Integrated Labor Market Assessment report, 2021





**Fig 28: Scope of employment creation by the construction industry**

The local construction sector is further boosted by national government investment in the sector. The overall goal of Kenya Vision 2030 for the construction sector is to increase its contribution to Gross Domestic Product (GDP) by at least 10% per annum and propel Kenya towards becoming Africa’s industrial hub.

Consequently, the Kenya government has heavily invested in improved infrastructure such as road networks and housing. Benefits for Turkana and Samburu include the LAPSSSET corridor, the Moyale- Isiolo road and the ongoing Rumuruti- Mararal road.


### **Constraints limiting growth**

Constraints relevant to this sector are related to the ability of the USAID Nawiri target groups to benefit from employment opportunities, including:

- Most target beneficiaries are unskilled and thus able to provide only casual labor
- Artisanal skills acquired as a result of prolonged exposure are unrewarded as no training or certification is available
- There is limited diffusion of the latest construction technologies, materials and designs, and few mechanisms for bringing these to local markets.
- Most skilled labor is imported from outside of the two counties

### **Relevance and Feasibility of the Construction Sector in Providing Employment**

The construction sector could be a driver of job creation for USAID Nawiri’s target group, with wide scope for labor absorption as shown in Figure 28. Training and upskilling in sub-sectors



including plumbing, electrical wiring and painting would be a valuable intervention to consider as it requires little formal education beyond vocational training.

Strategies to increase employment creation by the construction sector in Turkana and Samburu counties would include:

- Providing skills and certification to improve opportunities that go beyond casual labor
- Organize semi-skilled artisans including plumbers, electricians and painters into associations, to improve negotiations and bargaining power for jobs with contractors and real estate agents
- Investing in low-cost housing that replicates a traditional manyatta structure, geared to peri-urban areas.
- Develop specialization for highly skilled artisans who could then be hired to work across the country on the range of construction projects proliferating nationwide. This can be achieved through partnership with the large construction firms for practical learning and subsequent employment placements.

## **Tourism - Samburu**

### **Size of the Sector**


Tourism in Samburu is anchored in wildlife, oriented mainly around the Samburu National Reserve, the Mararal National Sanctuary, a community rhino sanctuary at Sera Conservancy, 12 community conservancies and one community animal orphanage.

This has a commensurate impact on hospitality, with approximately 35 recognized tourist resorts and hotels with a bed capacity of 423 (Samburu County CIDP 2018 – 2022). The county records an annual visit of 10,000 - 15,000 tourists (KNBS Economic Survey Report, 2020). The Samburu Adolescent Youth Survey (2017) reports that youths consider tourism as a key generator income and employment.

Tourism is the second largest provider of formal employment after the county government. At least 3,000 people in Samburu East are employed in the tourism sector, including 2,000 employed by conservancies. Other hospitality-linked businesses include those that serve the British army barracks at Archer's post, which employ nearly 800 people. This makes Samburu East the driver of roughly 80% of the county's revenue.

### **Growth and drivers**

Due to the presence of wildlife not found elsewhere – including the Grevy's zebra, reticulated giraffe, Beisa oryx, gerenuk and Somali ostrich – wildlife tourism is both a critical resource for the community and an important contributor to biodiversity and environmental sustainability for the county, if managed correctly. The Northern Rangeland Trust has been critical to developing community conservancies, linking conservation efforts to community enterprises and ensuring that



revenue from conservation is shared among communities. This deliberate effort to effectively ensure human/wildlife coexistence has produced superior results, which should be at the basis for best practice for Kenya's national efforts to maintain its wild spaces.

Tourism should benefit from ongoing infrastructure development; the LAPSSET corridor will provide direct linkage to Lake Turkana, while the Isiolo Moyale highway will open parts of Samburu to visitors as they travel to Northern Kenya.

Hospitality is also linked to tourism. Increased urbanization has meant growing demand for hotels, and attendant growth in sectors including housekeeping, child care and catering.

### **Constraints to Growth**

The sector is highly vulnerable to disruptions like insecurity and pandemics. There have been minimal efforts to promote tourism through targeted marketing, and wildlife conservation is still considered a vestige of colonialism and not accessible or of interest to local tourist markets.

### **Feasibility and Relevance to the USAID Nawiri target Group**

There are considerable direct and indirect employment opportunities from tourism, reaching skilled, semi-skilled and unskilled labor. Whether it is the beadwork being done by women; security by rangers trained to inhibit poaching; or construction of new hotels and lodges, tourism is a growth industry. Understanding where investment is necessary in making tourism both viable and accessible could be of great advantage to the target populations under USAID Nawiri.

### **Wholesale and retail trade**


Trade is also a viable job creator for the two counties, building on the efforts of MSMEs in the region.

Rapid growth in wholesale and retail trade is being fueled by urbanization, infrastructure development, access to energy, improved telecommunication, and developments in ICT. The sector contributes 3.3% of the GCP of Turkana, driven by the more than 3,000 SME registered by the Turkana Chamber of Commerce<sup>27</sup>. Most trading is in towns like Lodwar and Kakuma, with the refugee camp a hub of business activities valued at USD 56 million a year. Micro enterprises make up 98% of the informal sector, while the rest are small enterprises with 1-9 workers, which is below their potential<sup>28</sup>.

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<sup>27</sup> Japheth Ogila, Standard Newspaper report September 27, 2018

<sup>28</sup> Turkana County Integrated Labor Market Assessment Report, ILO, 2021



Samburu had 1,724 registered businesses in 2017,<sup>29</sup> and actively supports youth and women-led SMEs through government loans schemes like the Youth Enterprise Fund and the Women Enterprise Fund. Business skills are also taught through the county's partnerships with BOMA-Kenya, Kenya Women Enterprise Fund, Affirmative Action and Uwezo Fund.

Most registered businesses are sole proprietorships, with 58% financed by personal savings, and another 16% receiving contributions from family members. Lack of capital was cited as a hurdle to starting up by 57% of respondents, while 58% cited competition from similar businesses. Given the risks of using loans to finance startups, MSMEs need savings mechanisms like table banking to amass startup capital.

In Samburu, 42% of businesses have employees, compared to 38% in Turkana, drawn from both paid wage earners and unpaid family labor. Some 60% of businesses use paid labor, represented on average by two workers with an average age of 24.2 and an average wage of KES 9,284 for unskilled workers, KES 15,089 for semi-skilled, and KES 18,505 for skilled workers.

On average, SMEs had eight years of self-employment in their businesses, and they tend to remain in the same sector.

Businesses have low and peak seasons. The low season averages 5.8 months in Samburu and 4.5 months in Turkana. During the low seasons, businesses operate 4.34 and 4.65 days per week in Samburu and Turkana respectively. The work week extends to 5.74 and 5.31 days in Samburu and Turkana during peak periods. Income from business is also seasonal, jumping from an average income of KES 8,401 and 13,530 per month for Samburu and Turkana during low season to KES 16,751 and 25,448 during peak season. At the time of this study, the average reported income for the month before data collection was KES 16,584 and 16,631 for Samburu and Turkana respectively. Focus groups said the fluctuations followed changes in price and demand, with weather also affecting farm businesses. For the fisheries, seasonality follows wind patterns and the breeding cycle of fish.

Understanding how to identify and address seasonal fluctuations in income using a market systems approach would be a valuable intervention by USAID Nawiri.

Formal and informal associations are largely responsible for organization and regulation of MSMEs, but participation remains low. Reasons for not joining associations included not being aware of their existence (49%), lack of interest (22%), being not sure of benefits (15%) and bad governance of the associations (9%).

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<sup>29</sup> Samburu county CIDP, 2018-2022

For those who are members of associations, the greatest benefit cited was access to loans (74%), followed by access to training (22%). A smaller proportion (18%) cited accessing to market information, while 10% cited dispute resolution services.

Interviews with business associations shows that key services include:

- Maintenance of infrastructure, for instance irrigation, livestock markets, beaches.
- Linking members and buyers
- Forming savings and credit schemes for offer members affordable loans
- Mobilizing support from the county government and development partners
- Identifying entry points for training
- Meeting welfare needs for members, such as medical bills and burials
- Enforcement of rules to ensure ethical business practices
- Dispute resolutions
- Acquisition of inputs on behalf of members

Associations vary in their ability to successfully implement all these functions. Some have started subsidiary businesses to reinvest members’ contributions, while others are on the verge of transitioning to formal SACCOs. Given the small scale of MSMEs, strengthening these associations will enhance their organization and structure.

### Employment Practices

Some 34% of the target group in the two counties found their jobs through personal search, while 31% were referred by friends and 19% by relatives. Only 4-5% found jobs through training institutions and apprenticeships. Most respondents in both counties said either work experience (40%) or having required skills (30%) were the main requirement getting hired. Other respondents indicated the main requirement was having some networks (13%) or passing interviews (13%), while another 13% said no conditions were required.

Most employees said they were engaged informally through verbal contracts (76%), though in construction 40% of employees had formal contracts. On average, employees work 20 days a month (Samburu = 22; Turkana = 20; male =20; female 21). Average monthly salaries are estimated at KES 7,317 in Samburu and KES 9,694 in Turkana. Men earned more (KES 9,843) than women (KES 7,063)

<b>Description</b>	<b>Hours worked/day</b>	<b>Days worked/month</b>	<b>Months worked/Year</b>	<b>Average income 2021</b>
<b>Aggregate</b>	11.0	20	11	9,237
<b>Samburu</b>	11.0	22	10	7,317
<b>Turkana</b>	10.9	20	11	9,694

<b>Female</b>	8.5	21	10	7,063
<b>Male</b>	11.6	20	11	9,843

**Table 17: Levels of effort versus average incomes by MSMEs**

The terms of payment varied, with livestock, beauty and cosmetic, hospitality and tourism, and IT paying daily wages. In other sectors, people received commissions, monthly or weekly wages, as shown in Table 18. Most are paid in cash (73%), with some receiving checks/bank transfers (18%) or Mpesa (7%), while a small percent were paid in food. Construction workers were often paid through banks (33%) or Mpesa (2%). One-third of farmworkers in crops said they were paid in food. Employees in trade and fishing are also paying through banks (25% and 10% respectively).

Since many employees are paid daily and on a cash basis, training on financial literacy to develop a saving culture would enable long-term financial security. In addition, these employees need to form effective savings and loan schemes, for both savings and access to affordable credit.

Wage formation follows a similar pattern. Over half of respondents had negotiated their salaries with employers. But those in hospitality said their salaries are determined by the employers with no room for bargaining. In construction, 33% had negotiated their salaries with employers, while 53% had no room for bargaining. In trade and *bodabodas*, half negotiated and half said they could not. In the beadwork and basketry sectors, 76% had negotiated their salaries while 24% took the offer without bargaining. Only 2% of employees knew that SACCOs could aid in negotiating wages.

<b>Sectors</b>	<b>Paid by Commission</b>	<b>Daily Wage</b>	<b>Weekly Wage</b>	<b>Monthly Salary</b>
<b>Aggregate</b>	14%	40%	5%	41%
<b>Crops</b>	13%	38%	13%	38%
<b>Fishing</b>	40%	50%	0%	10%
<b>Livestock</b>	0%	100%	0%	0%
<b>Beauty and Cosmetics</b>	0%	100%	0%	0%
<b>Construction</b>	0%	20%	7%	73%
<b>Hospitality and Tourism</b>	0%	100%	0%	0%

<b>IT</b>	0%	100%	0%	0%
<b>Jua kali</b>	17%	72%	6%	6%
<b>Trade</b>	0%	25%	0%	75%
<b>Bodaboda</b>	38%	38%	13%	13%

**Table 18: terms of employment across sectors**

Employment is seasonal across all sectors. Turkana had more employees (76%) reporting seasonality compared to Samburu (58%). All respondents from *bodaboda*, IT, hospitality/tourism, and livestock sectors reported seasonality. Seasonality in other sectors was reported as follows: construction (67%), basketry and beadmaking (72%), trade (75%), fishing (80%) and crops (89%). The low season lasts an average of five months in Turkana and four in Samburu. The high season lasts six months in Turkana and eight in Samburu. Average incomes in Samburu remained steady despite the seasonal variations, from KES 4,463 during low season to 4,795 during peak season. A greater variation was noted in Turkana, from KES 6,661 in the season to 9,736 during peak season.

## LABOR SUPPLY

### Economically Active Populations

#### Turkana

In the 2019 census, Turkana's economically active population was 791,011, with 327,808 people working (41%) and 145,174 people looking for work (18%). Women made up 47% of the working population. About 40% of the working-age population was not in the labor market.

In towns, the working age population was estimated at 70,838, split roughly into thirds among those working, those seeking work, and those not in the labor market, as summarized in Table 19. Rural areas had 357,278 economically active people, with half working. About 29%, or 103,618 people, were seeking work and 21%, or 74,747 people, were outside of labor force, as in table 20. Analysis of these results reveals:

- The rural economy employs more people. As seen earlier, that means work in livestock, fisheries and agro-pastoralism. Basketry is also rural-based, with end markets in the urban areas.
- Analysis of urban and rural incomes need to be compared against cost of diets to reveal the level of vulnerability.

Age Cohort	Total	Working		Seeking Work/ No Work Available		Persons outside the labor Force		Not Stated	
		Number	%	Number	%	Number	%	Number	%
18 - 24	23,357	4,293	18 %	7,268	31 %	11,786	50 %	10	0.0 %
25 - 34	22,483	8,972	40 %	8,575	38 %	4,932	22 %	4	0.0 %
35 - 64	21,410	9,217	43 %	7,635	36 %	4,547	21 %	11	0.1 %
65 +	3,588	805	22 %	878	24 %	1,904	53 %	1	0.0 %
<b>Total</b>	<b>70,838</b>	<b>23,287</b>	<b>33 %</b>	<b>24,356</b>	<b>34 %</b>	<b>23,169</b>	<b>33 %</b>	<b>26</b>	<b>0.0 %</b>

**Table 19: Turkana's urban labor force (people aged 18+). Source: KNBS census report Volume IV**

Age Cohort	Total	Working		Seeking Work/ No Work Available		Persons outside the labor Force		Not Stated	
		Number	%	Number	%	Number	%	Number	%
18 - 24	112,880	49,402	44%	32,150	28%	31,224	28%	104	0.1 %
25 - 34	109,352	54,647	50%	34,983	32%	19,623	18%	99	0.1 %
35 - 64	115,475	63,540	55%	32,897	28%	18,920	16%	118	0.1 %



<b>65 +</b>	19,571	10,986	56%	3,588	18%	4,980	25%	17	0.1 %
<b>Total</b>	357,278	178,575	50%	103,618	29%	74,747	21%	338	0.1 %

**Table 20: Turkana's rural in labor force (people aged 18+)**

### Samburu County

The census put Samburu's economically active population at 257,368, with 144,384 (56%) working people and 14,181 (5.5%) seeking work. Women accounted for 50.04 of the working population. Some 38% of the working population was outside of the labor force.

In towns, the working-age population was 24,135. Some 58% were working, with 17% seeking work and 26% outside the labor force, as in table 21. The rural working-age population was 109,410, with 76%, working, 8% seeking work, and 16% outside of labor force. Table 22 summarizes these findings while further analysis reveals:

- A larger portion of the working-age population in towns is seeking work, compared to rural areas (17% against 8%).
- Employment rates are higher among 18-24 year-olds in rural areas, highlighting the role of the rural economy, examined in detail in the sector analysis.

Age Cohort	Total	Working		Seeking Work/ No Work Available		Persons outside the labor Force		Not Stated	
		Number	%	Number	%	Number	%	Number	%
<b>18-24</b>	7,249	2,804	39 %	1,285	18 %	3,160	44%	0	0.0%
<b>25 – 34</b>	7,875	5,158	65 %	1,385	18 %	1,332	17%	0	0.0%
<b>35 – 64</b>	7,957	5,491	69 %	1,245	16 %	1,219	15%	2	0.0%
<b>65 +</b>	1,054	455	43 %	119	11 %	480	46%	0	0.0%

<b>Total</b>	24,135	13,908	58%	4,034	17%	6,191	26%	2	0.0%
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**Table 21: Samburu County Distribution of Urban population in labor force for people aged 18 years and above.**

**Source: KNBS census report Volume IV (2019)**

Age Cohort	Total number of people	Working		Seeking Work/ No Work Available		Persons outside the labor Force		Not Stated	
		Number	%	Number	%	Number	%	Number	%
<b>18 - 24</b>	34,426	22,050	64%	2,707	8%	9,668	28%	1	0.0%
<b>25 - 34</b>	31,810	25,436	80%	2,878	9%	3,492	11%	4	0.0%
<b>35 - 64</b>	34,988	28,934	83%	2,818	8%	3,233	9%	3	0.0%
<b>65 +</b>	8,186	6,486	79%	444	5%	1,254	15%	2	0.0%
<b>Total</b>	109,410	82,906	76%	8,847	8%	17,647	16%	10	0.0%

**Table 22: Samburu County Distribution of Rural population in labor force for people aged 18 years and above.**

**Source: KNBS census report Volume IV (2019)**

## **SOCIO-ECONOMIC CHARACTERISTICS OF THE LABOR SUPPLY**

This section looks at USAID Nawiri target groups, who in this study, form the labor supply. Livelihood activities vary depending on available natural resources and market opportunities.

### **Urban zones**

More livelihood options for men, women and youth are found in towns, due to:

- Construction sites employing both men and youth as casual labor
- Growing middle-class neighborhoods that employ women as domestic labor and men in security
- Growing business sites and offices employing cleaners and guards for large businesses, corporates, NGOs, UN agencies, and government
- Working mothers who employ child caregivers

- High demand for food and groceries, creating opportunities for small retailers

### Pastoral zones

Pastoral zones have the fewest opportunities for employment creation, because of climate change in Turkana and insecurity in Samburu. Turkana has the fewest options, but youth are finding work in transport and construction sites. Below is a brief analysis of these trends per county:

#### **Turkana**

Men from target groups are mainly working on construction sites as unskilled casual workers as well as in sand collection. Insecurity in places like Lokichogio leads to jobs for men in peacekeeping or as guards. Other activities include charcoal burning and fetching of firewood, as well as some livestock herding and trading.

Many youths work as *bodaboda* riders or as unskilled, casual labor at construction sites. A big proportion is involved in retail, while others are engaged in livestock trade and security services.

Women work in charcoal burning and selling, fetching and selling firewood, or running kiosks, hawking, and making local brews. Those near shopping centers also work in shops, bars, and salons, or work as housekeepers, hairdressers, or water vendors.

#### **Samburu**


As pastoralism declines, men in Samburu East have turned to livestock trading and herding), casual construction work, sand harvesting, plumbing, and welding. Others include general casual (fencing, pit latrines), security services (as watchmen), water vending, drivers, and retail (in honey, fencing posts, acacia pods, and aloe vera). In the North, the options are more limited. Men turn to livestock activities (trading, trekking and herding), casual labor at construction sites, as well as general casual labor like fencing, construction of latrines, harvesting and sale of acacia pods or aloes, and working as watchmen.

Women in pastoral areas are also engaged in a host of activities to make ends meet. Many turn to charcoal burning and selling, and firewood fetching and selling. Those near shopping centers provide household care including childcare, house cleaning and cooking. Many engage in retail, especially selling milk, hawking and local brewing. A smaller proportion is involved in water vending and livestock activities, especially trade in small stock, selling poultry and eggs as well as poultry rearing. A minority are involved in beadmaking. Where livestock markets are vibrant in the rural areas, women can engage in trading, at least on market days.

### Agro-pastoralist zones

#### **Turkana**

Youth mainly work in casual labor at construction sites. Charcoal, kiosks and street vending of foodstuff also employ many day laborers, as does security and *bodaboda*. Women are involved in charcoal burning, selling charcoal and firewood, as well as running kiosks. Many men work at construction sites as casual labor, with a few working semi-skilled jobs like masons or plumbers.



A few do casual work, especially digging pit latrines. Both men and women near the irrigation schemes work on farms.

This analysis shows that irrigation schemes anchor the agro-pastoralist communities living near the Turkwel and Kerio rivers. Away from irrigation schemes, people have no economic anchor.

### **Samburu**

In the agro-pastoralist areas of Samburu, both crop farming and livestock keeping offer economic anchors whose benefits extend to Maralal. Most of the target group works on farms. Livestock activities include herding, trekking, and trading, mainly done by men and youth. Living close to Maralal, men and youth are able to work in construction sites as unskilled labor, while women operate small-scale retail businesses (vegetable, charcoal, firewood, water vending, and food vending, general kiosks). Women living near shopping centers also work as laundry washers, domestics, babysitters.

### **Fisheries Zone in Turkana**

Men, women and youth near Lake Turkana all work in fishing activities, either directly or indirectly. Many youths work as fishermen, boat hands, longshoremen, *bodaboda* fish transporters, traders, or in sorting grading and packaging fish. Some youth herd livestock. Many women sort, grade, count, trade or process fish. Processing here means smoking, drying or frying. In addition, women may burn charcoal, fetch firewood, sell charcoal and firewood, weave baskets, or run retail businesses like kiosks or eateries.

### **Labor supply trends**

The dwindling role of livestock has left pastoralist communities without an economic anchor, making them most vulnerable. Youth have moved to *bodaboda* riding and unskilled labor at construction sites, but men do not seem to have a clear economic activity. Women depend heavily on charcoal burning and selling, fetching firewood for sale, along with small-scale retail activities. Labor market interventions should therefore use existing physical and social assets to develop a new economic anchor.

The towns of Maralal, Lodwar, and Kakuma present diverse opportunities for all social groups. These are expected to increase as more people move to towns. Labor market interventions would incorporate job training for skilled trades that could be used nationwide.

Turkana's fisheries zone has ample raw materials along the lake for women to take up basketry. Labor market interventions should improve skills and address obstacles to the growth of fisheries.

Samburu's agro-pastoralist zone has relatively more options anchored by livestock, crop farming and Maralal's growing population. Interventions should promote the concept of farming as a business, with effective services and supply systems while tackling systemic constraints. In livestock, interventions should stimulate new production systems and provide training to use

them. This will lead to more vibrant crop and livestock value chains, sustainably creating more jobs.

Turkana's agro-pastoralist zone has two main trends. In the first, communities within irrigation schemes are anchored by farming activities, calling for a similar approach as in Samburu. In the second, communities not connected to irrigation do not have a solid economic activity to anchor livelihoods. Labor market interventions applicable in the pastoral zones will therefore apply here.

### Salaries and wages by sectors and type of employment

Incomes for the self-employed in Turkana ranged from KES 2,400 to 22,000 a month, table 23. Higher incomes in Turkana are yielded from fishing with an average monthly income of KES 10,000, charcoal trade in Lokichogio with a monthly income of KES 5,000 and sale of vegetable/cereals in Lokori, for daily wages of KES 400. Cobblers earned the lowest income, just KES 700 in a week closely followed by Jua kali businesses with a monthly income of KES 3,000 in Kalokol town.

Employed people earn significantly less than the self-employed. Casual labor in Kakuma earned one respondent a monthly income between KES 15,000 – KES 18,000, while masons in Central Nabulon and Lokichar earned KES 11,000 monthly. Cleaners and housekeepers in Turkana earned the lowest income of between KES 3,000 – KES 4,000 monthly in Lokori and Central Nabulon.

Location	Type of occupation	Wages (KES)	Daily/monthly	Actual monthly income
<b>Agro-pastoralist livelihood zones</b>				
Lokori	Cleaners	3,000	monthly	3,000
	slaughter man	9,000	Monthly	9,000
	boda-boda	2,100	weekly	8,400
<b>Pastoral livelihood zones</b>				
Kakuma	Barbers	4,500	Monthly	4,500
	casual laborer (chief's office)	15,000	monthly	15,000
Lokichogio	Casual	18,000	monthly	18,000
	grocery employees	12,000	monthly	12,000
<b>Mixture of pastoral and agro-pastoralist livelihood zones</b>				
Lokichar	security guards	10,000	monthly	10,000
	offloading and loading	400	daily	8,800
	loading sand into trucks	500/truck	daily	11,000
	house construction	500	daily	11,000
	Cleaners	8,000	monthly	8,000
	office managers	6,000	Monthly	6,000

Loima	Construction	3,000	weekly	3,000
Lodwar urban				
Central Nabulon	Masons	500	daily	11,000
	Housekeeping	4,000	monthly	4,000

**Table 23: Employed wages/Salary in Turkana**

Location	Type of occupation	Wages (KES)	Daily/Monthly	Actual Monthly Income
Agro-pastoralist livelihood zones				
Lokori	boda-boda	2,800	Weekly	11,200
	kinyozi/salons	2,500	Weekly	10,000
	shoe repair	700	weekly	2,800
	selling vegetables	400	daily	8,800
Fishing livelihood zones				
Kalokol	fishing	10,000	Monthly	10,000
	Jua kali business	3,000	Monthly	3,000
	bodaboda	1,000	daily	22,000
Pastoral livelihood zones				
Kakuma	bodaboda	500	daily	11,000
	kiosk	500	Daily	11,000
Lokichogio	charcoal selling	5,000	monthly	5,000
	carwash	1,500	weekly	6,000
	laundry	500	daily	11,000
	bodaboda	2,000	weekly	8,000
Mixture of pastoral and agro-pastoral livelihood zones				
Lokichar	boda-boda	500	Daily	11,000
	beauty and cosmetics	800	weekly	3,200
	catering hotels	200	daily	4,400
	trade retails	5,000	monthly	5,000
	selling charcoal	200	daily	4,400
Loima	Plumbing	500	daily	11,000
	Bodaboda	4,000	weekly	16,000
	selling vegetables	300	Daily	6,600
	charcoal selling	600	weekly	2,400
	Weaving	800	weekly	3,200
Lodwar urban				
	kiosks	300	daily	6,600

Central Nabulon	meat vending	500	daily	15,000
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**Table 24: Self-employed wages in Turkana**

### Samburu County

In Samburu, livestock trading and bead making records very high incomes both for the employers and employees. Most of the employed are casual workers, in jobs such as construction. Construction offers the best pay to casual laborers, averaging about KES 700 a day, or 15,400 every month. Among construction workers, plumbers earn more than others. Truck loaders/unloaders are also paid relatively more. Men generally earn more than women.

Self-employed people in Samburu work as livestock traders, bead makers owning curio shops, or selling fencing material. Livestock herders have the highest incomes, followed by bead makers and those who sell fencing material. Livestock traders have a chain of people who also benefit from the business, including those who trek the livestock to the market, brokers, and salespeople.

Location	Type of occupation	Wages (KES)	Daily/monthly	Actual monthly income
Pastoral zone				
El barta	construction	500	Daily	11,000
	loading and offloading	500	Daily	11,000
	beadwork	300	Daily	6,600
	babysitting	3,000	Monthly	3,000
	cooking in occasions, schools	2,000 200	Per occasion Daily	6,600
	mpesa shops	3,000	Monthly	3,000
Wamba East	plumber	1,500	Weekly	6,000
	construction	700	daily	15,400
	house helps	2,500	monthly	2,500
	beadwork	150	daily	3,300
	washing clothes	150	daily	3,300
	herders	1500	weekly	6,000

	selling water	300	weekly	1,200
	bar attendant	5,000	monthly	5,000
	security guard	2,000	monthly	5,000
- Zone				
Porro	Beadwork	500	daily	11,000
	loading and offloading	500	daily	11,000
	construction	500	daily	11,000
Maralal	babysitting	3,500	monthly	3,500
	security guard	6,000	monthly	6,000
Ngilai	watchmen	5,000	monthly	5,000
	house help	4,000	monthly	4,000
	barmaids	5,000	monthly	5,000
	hotel waiters	5,000	monthly	5,000
Unidentified Zones				
LEWASO SHG SACCO	revenue officer	7,000	monthly	7,000
	office people	3,000	monthly	3,000

**Table 25: Employed wages in Samburu**

Pastoral Zone				
El Barta	collecting fencing material	500	daily	11,000
	charcoal burning and selling	300	daily	6,600
	firewood selling	300	daily	6,600
	fetching water	100	daily	2,200



	bodaboda	400	daily	8,800
Wamba East	salon	200	daily	4,400
	charcoal selling	600	weekly	2,400
- Zone				
Porro	bodaboda	500	weekly	2,000
Maralal	livestock traders	4,000	weekly	16,000
	painters	300	daily	6,600
	butchery	250	daily	5,500
Ngilai	charcoal selling	600	weekly	2,400
	milk selling	1,200	weekly	4,800
	clothes washing	400	daily	8,800
	fetching firewood	200	daily	4,400
	fetching building materials	300	daily	6,600
	fetching gravel	150	daily	3,300
	fetching acacia pods	300	weekly	6,600

**Table 26: Self-employed wages in Samburu**

### Level of education

The study results reveal that 38% of the respondents in Turkana had no formal education<sup>30</sup> while in Samburu, 24% had none. About one-quarter had finished primary education certification in the two counties, while 21% had finished secondary school. Only 6% in Samburu and 2% in Turkana had attended vocational school, and 16% and 8% had attended tertiary school, as detailed in table 27.

Census data compiled by KNBS suggest that 71% of Turkana county residents have completed primary school – which is inconsistent with the results of the study. Deeper examination suggests that census data also includes preprimary education, where this study did not.

In Samburu, the census also found higher rates of primary school completion, 70%, but the secondary school data aligned.

<sup>30</sup> The Kenya's national education system (8 -4 -4)

As shown in Table 27, the portion of the population with no formal education grows along with age.

Gender also correlated with level of education ( $\rho = 0.289$  (691),  $p < 0.05$ ), with men more likely than women to have a higher level of education. Most women (52%) had no formal education, with 18% completing primary school and 14% high school. But only 20% of men had no formal education, while 30% finished primary school, and 27% high school. Only 1% of women and 6% of men have attended vocational training.

Respondents in this study said the trend was changing, with more girls in school and more women involved in decision-making in both counties. This is due to local organizations, NGOs and FBOs raising the importance of girls' education while discouraging early marriages and the banning of the practice of female genital mutilation.

Categories	Adult Literacy education	No formal education	Primary school	Secondary school	Tertiary (Diploma and Certificate)	University Graduate	Vocational Trainings
18-24 Years	1%	15%	24%	43%	13%	3%	2%
25-35 Years	3%	30%	27%	21%	12%	5%	3%
36-50 Years	6%	41%	24%	17%	8%	1%	4%
51-60 Years	5%	68%	20%	0%	2%	2%	2%
> 60 Years	7%	67%	13%	0%	0%	7%	7%
Female	5%	52%	18%	14%	8%	3%	1%
Male	2%	20%	30%	27%	11%	3%	6%
Samburu	2%	24%	24%	23%	16%	5%	6%
Turkana	4%	38%	25%	21%	8%	2%	2%
Aggregate	4%	35%	25%	21%	10%	3%	3%

**Table 27: Level of Education**

*PARTICIPATORY LABOR MARKET SYSTEMS ASSESSMENT IN SAMBURU AND TURKANA COUNTIES*

## Asset ownership among target groups

### Asset ownership, by livelihood zone

Livestock are the main household assets. At least 51% of Samburu own sheep, and 49% own cattle. Flocks in agro-pastoral zones are larger, averaging 25 sheep, while in pastoral zones they average 19 sheep and in towns 16 sheep. Cattle herds average 12 cows.

In Turkana, 45% of households own goats. In agro-pastoral zones, 56% of households keep them, with herds averaging 15 goats. In pastoral areas, with 48% of households keep herds, averaging 21. In fishing areas, 41% households keep goats, with an average herd of nine.

Turkana households also keep poultry (27%) and sheep (22%). One third of pastoral households owned chickens, with flocks averaging seven birds. For urban households, sheep were more popular. About 20% of households had sheep, with flocks averaging 15 heads.

Across both counties, the most common assets were goats, owned by 47% of households, whose herds averaged 19 heads.

Nearly a third of Samburu households own land, on average about 5.4 acres. About 37% of urban households owned land, on average 2.4 acres. Three-fourths of agro-pastoralist households owned land, on average 7.3 acres. Land subdivision is ongoing in Samburu, particularly in the Samburu Central, which covers the agro-pastoralist zone and Maralal. Private land ownership could create greater incentives for agricultural investments.

Land ownership in Turkana is largely communal, although the government and councils of elders are increasingly allocating land to individual households/clans. Outside of Lodwar, Turkana has officially demarcated land or issued title deeds. In Lodwar, 17% of the respondents owned land, on average 4.6 acres.

Type of Asset	Proportion owning Assets and number owned					
	Aggregate		Samburu		Turkana	
	N%	Mean	N %	Mean	N %	Mean
Land (Acres)	21%	4.9	32%	5.4	17%	4.6
Cattle (number)	14%	11	49%	12	3%	7
Goats (number)	47%	19	56%	24	45%	17
Sheep (number)	29%	14	51%	19	22%	10

Camel (number)	2%	8	7%	9	1%	6
Chicken (number)	29%	11	36%	14	27%	10
Donkeys (number)	1%	2	3%	2	1%	2
Fishing Nets (number)	2%		0%		3%	
Boats (number)	2%		0%		2%	
Fishing lines & hooks (number)	2%		0%		2%	

**Table 28: Household assets ownership**

#### Assets ownership, by age

The results reveal no significant difference between ownership of assets and age ( $p > 0.05$ ), although older respondents tended to own more assets, as shown in Table 29. Families headed by 18-24 year-olds in Samburu owned 3.5 acres of land. The 36-50 year-old cohort owned 8 acres on average. The older cohort owned twice as many cattle, on average 17 heads compared to eight. The same scenario is seen in ownership of sheep and camel in Samburu.

Turkana residents indicated older people owned more land. Those aged 36-50 owning an average of 4.1 acres, compared to 1 acre for people aged 18-24. The younger cohort in Turkana did not own any cattle, respondents aged 36-50 years owned on average eight heads. The same trend was seen in goat ownership (18-24 years = 11, 36-50 years = 20). Table 30 summarizes assets ownership by age in the two counties.

Type of Asset	Samburu					Turkana				
	18-24 Years	25-35 Years	36-50 Years	51-60 Years	>60 Years	18-24 Years	25-35 Years	36-50 Years	51-60 Years	> 60 Years
Fishing Nets						4%	4%	2%	0%	8%
Boats						3%	3%	3%	0%	0%
Fishing lines and hooks						3%	1%	3%	0%	8%
Goats	54%	58%	54%	75%	0%	38%	42%	49%	54%	38%

Cattle	33%	51%	52%	75%	50%	0%	2%	4%	5%	0%
Chicken	21%	37%	41%	50%	0%	22%	23%	34%	24%	38%
Camel	4%	8%	7%	0%	0%	0%	1%	0%	0%	0%
Donkey	4%	2%	2%	0%	0%	0%	1%	1%	3%	0%
Land	29%	33%	30%	50%	0%	9%	17%	21%	19%	0%
Sheep	38%	55%	50%	75%	50%	16%	18%	27%	35%	15%

**Table 29: Asset ownership, by age**

County	Age cohort	Statistic	Land (Acres)	Cattle (No.)	Goats (No.)	Sheep (No.)	Came (No.) 1	Chicken (No.)	Donkeys (No.)
Samburu	<b>18-24 Years</b>	N	2	8	13	9	1	5	1
		Mean	3.50	4.88	17.46	10.00	2.00	12.80	2.00
	<b>25-35 Years</b>	N	23	43	49	46	7	31	2
		Mean	4.26	10.42	22.76	20.28	8.14	14.81	1.50
	<b>36-50 Years</b>	N	10	24	25	23	3	19	1
		Mean	8.00	16.96	29.96	20.91	12.00	13.84	3.00
	<b>51-60 Years</b>	N	1	3	3	3	0	2	0
		Mean	10.00	18.33	8.00	18.33		6.00	
	<b>&gt; 60 Years</b>	N	0	1	0	1	0	0	0
		Mean		2.00		34.00			
Turkana	<b>18-24 Years</b>	N	7	0	29	12	0	17	0
		Mean	1.00		11.03	7.58		5.82	
	<b>25-35 Years</b>	N	29	5	91	38	3	49	3
		Mean	6.83	7.60	16.22	9.13	5.67	6.86	1.67
	<b>36-50 years</b>	N	33	8	92	50	0	63	2
		Mean	4.06	8.00	19.51	11.48		13.68	1.50
	<b>51-60</b>	N	7	2	20	13	0	9	1
		Mean	1.43	4.00	16.55	8.85		6.44	2.00

	<b>years</b>								
	<b>&gt; 60</b>	N	0	0	5	2	0	5	0
	<b>Years</b>	Mean			6.40	2.50		9.00	

**Table 30: Number of assets owned, by age**

### Assets Ownership by Gender

Generally, men owned more assets. Male respondents in Samburu owned an average 6 acres of land, while female-headed households owned an average of 4.4 acres. The male-headed households also indicated they owned more livestock, on average 24 goats, 14 cattle, 21 sheep, and 9 camels. Female-headed households owned on average 24 goats, 8 cattle, 17 sheep and 5 camels.

In Turkana, female-headed households owned an average of 4.3 acres, compared to 4.9 acres owned by the males. Male-headed households owned 21 goats, 8 cattle, 11 sheep, and 8 camels. Female-headed households 13 goats, 6 cattle, 8 sheep and 2 camels.

There was no statistically significant difference in the ownership of shoats (sheep/goats) ( $p > 0.05$ ), although cattle ownership was significantly different between men and women ( $t = 2$  (92),  $p < 0.05$ ) with men owning an average of 13 cattle compared to seven by women. The ownership of land had no statistically significant difference in general ( $p = 0.778$ ).

Type of Asset	Samburu		Turkana	
	Female	Male	Female	Male
Fishing Nets	0%	0%	2%	4%
Boats	0%	0%	2%	3%
Fishing lines and Hooks	0%	0%	2%	2%
Goats	47%	61%	46%	43%
Cattle	40%	54%	2%	4%
Chicken	35%	36%	31%	23%
Camel	4%	9%	0%	1%
Donkey	2%	3%	0%	2%
Land	35%	30%	18%	17%

Sheep	47%	53%	20%	23%
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**Table 31: Proportion of women and men owning different assets**

County	Gender	Statistic	Land (Acres)	Cattle	Goats	Sheep	Camel	Chicken	Donkeys
Samburu	<b>Female</b>	N	13	22	26	26	2	19	1
		Mean	4.38	7.68	23.50	16.54	5.00	9.32	2.00
	<b>Male</b>	N	23	57	64	56	9	38	3
		Mean	6.00	13.72	23.50	20.77	9.44	16.34	2.00
Turkana	<b>Female</b>	N	38	5	119	53	1	81	1
		Mean	4.26	6.20	12.93	8.30	2.00	9.95	1.00
	<b>Male</b>	N	38	10	118	62	2	62	5
		Mean	4.92	7.90	20.47	11.16	7.50	9.58	1.80

**Table 32: Number of assets owned, by gender**

## Skills Possessed by the Target Groups

### Literacy and numeracy skills

More respondents can read and write in Samburu (76%) than in Turkana (59%). Literacy levels decline with age. The 18-24 year-olds are the most literate (84%), followed by those aged 25-35 years (69%). This declines to 30% of those above 50 years. It is important, however, to note that literacy and numeracy are not directly correlated to access to formal education, nor to language acquisition beyond vernacular.

Among women, 51% said they can read and write, compared to 20% of men. Most men (77%) said they can only read, against 46% of women. Only 2% of women and 3% of men said they could neither read nor write. Even within the age groups, women had higher levels of literacy.

Numeracy skills were relatively high, ranging from 76-98% in Samburu and 50-87% in Turkana for different numeracy skills. Almost everyone can count (95% in Samburu, 87% in Turkana), including across age groups (ranging from 90% among the 18-24 year-olds to 87% for those above 60 years) and gender (85% female and 93% male). Most people can add (81%) and subtract (73%). Far fewer could record numbers (74% in Samburu and 33% in Turkana). This skill showed wide differences by age groups (18-25 years at 60%, 25-35 years at 46%, down to 20% for those above 60 years) and gender (33% female and 5% male).

### Technical Skills

The study sought to establish whether the target group possessed skills required for work. Skill levels varied across. In beauty and cosmetics, hospitality and IT, 100% of workers considered themselves as skilled. Crop farming had the most unskilled workers, estimated at 67%, due to the small scale of farming that relies on unskilled labor. Respondents said hard work and pay were more important than skills in crop farming. Basketry and beadwork, as well as wholesale and retail trade revealed a slightly higher proportion of semi-skilled workers, 33% and 50% respectively. Construction and *bodaboda* also had 27% and 25% semi-skilled workers.

Some 45% of workers under 35 years considered themselves skilled (Samburu = 62%, Turkana = 40%). For those above 35 years, only 16% of workers in the age group considered themselves as skilled in their respective jobs (Samburu = 0%, Turkana = 17%), as shown in Table 33.

County	Description	Skilled	Semi-skilled	Unskilled
Samburu	Youths (35 years and below	62%	15%	23%
	Above 35 years	0%	29%	71%
Turkana	Youths (35 years and below	40%	27%	34%
	Above 35 years	17%	24%	59%
Aggregate	Youths (35 years and below	45%	24%	31%
	Above 35 years	16%	25%	60%



**Table 33: Skills among target group, by age categories.**

**\*Respondents were asked to state whether they consider themselves skilled, non-skilled or semi-skilled in their work, irrespective of how the skills were acquired.**

Skill status varied by gender in the two counties, as shown in table 34. Overall, 44% of the male workers considered themselves as skilled (35% in Samburu, 44% in Turkana). Among women, 18% considered themselves to be skilled in their area of work (54% in Samburu, 11% in Turkana). Women workers largely felt unskilled, at 63% (31% in Samburu, 70% in Turkana) while only 28% of men felt unskilled (45% in Samburu, 26% in Turkana). The results highlight different gender dynamics in the two counties.

County	Gender	Skilled	Semi-skilled	Unskilled
Aggregate	<b>Female</b>	18%	19%	63%
	<b>Male</b>	44%	28%	28%
Samburu	<b>Female</b>	54%	15%	31%
	<b>Male</b>	35%	20%	45%
Turkana	<b>Female</b>	11%	20%	70%
	<b>Male</b>	44%	30%	26%

**Table 34: Skills, by gender**

**\*Respondents were asked to state whether they consider themselves skilled, non-skilled or semi-skilled in their work, irrespective of how the skills were acquired.**

#### Methods of skills acquisition

Results clearly reveal that where training institutions exist, people choose to use them. In Samburu, 44% had acquired skills through informal on the job training. In Turkana, which has more training institutions, 40% acquired their skills through training.

Four main pathways to skills acquisition are shown below.

- **Traditionally/culturally acquired** through mentorship from family and friends. These skills include weaving, beading, livestock trade and fishing: skills people learn from childhood as they helped older generation work.

- **Passive exposure** through informal, little instructions from friends and colleagues. This 'observe, do and learn' method was used by 44% of respondents (32% in Turkana, 50% in Samburu). Neighbors help each other learn skills that they didn't get growing up. For instance, some construction workers said they visited sites to observe others until they learned to do the work themselves. Young pastoralists who go to the lake during droughts also learned to fish by accompanying the fishermen and mimicking them. Young women entrepreneurs from Kakuma observed the skilled weavers, and then opened their own basketry businesses. Most *bodaboda* riders gained their skills from on the job training, or borrowing motorcycles from family and friends to practice. It's the same trend in hairdressing, baking, and agricultural activities.
- **Formal institutions** varied across the two counties. Only 2% of respondents in Samburu trained at formal institutions, compared to 40% in Turkana. A closer look at the data shows people who receive formal training tend to live in towns: 63% in Turkana and 31% in Samburu. Most training institutions are in towns. Samburu has one public VTC, while Turkana has eight public and at least four private ones. Turkana county has also benefited from NGO programs in Lokichogio, Kakuma and Lodwar, which provide scholarship and direct skills training from foundations such as the Norwegian Refugee Council, Lutheran World Foundation, JRS and Swiss Contact.
- Apprenticeship happens informally and formally and was more common in Turkana (22%) than Samburu (2%). Apprenticeships were mainly provided through NGOs.

There is a major variation between the skills that men and women found easy to acquire. Most women found hairdressing, baking, weaving and basketry easy skills to acquire. This is because they could be learned through observation and on job training. Men found *bodaboda* riding, barbering and fishing easy to learn. Most men learned to ride *bodabodas* from family and friends.

The target group had few computers, driving or other skills only offered in training institutions. As a result, they preferred informal activities where their skills could be easily monetized or earn waged employment.

#### Skill acquisition pathways among the target groups in different livelihood zones

On-the job learning and passing of skills from relatives were the most common pathways in all livelihood zones in Samburu, again emphasizing the lack of training institutions in the county. Turkana showed a more even distribution of skills acquisition pathways across livelihood zones, again showing a preference for formal training in towns and other pathways elsewhere. People who acquired skills from institutions were in urban zones (63%) and pastoral zones (41%), consistent with availability of institutions in Lodwar and Kakuma. This demonstrates the need to enable more people to access to formal institutions. Table 35 summarizes these findings.

County	Livelihood Zone	Attended a skills training course	On- the job learning (informal)	Formal apprenticeship	Passed to me from my relatives
Samburu	- LZ	10%	67%	5%	19%
	Pastoral LZ	16%	41%	0%	45%
	Urban LZ	31%	57%	4%	13%
Turkana	- LZ	33%	33%	33%	0%
	Fishing LZ	16%	26%	32%	32%
	Pastoral LZ	41%	30%	22%	7%
	Urban LZ	63%	38%	8%	4%

**Table 35: Different skills acquisition methods according to livelihood zones**

**Skill acquisition pathways among the target groups across sectors**

More than half (60%) of respondents in the IT sector had attended skills training, as had close to half of respondents from construction (45%) and basketry and beadwork (40%). Only 15% of *bodaboda* operators had acquired their riding skills formally, preferring informal training (35%) or learning from relatives (35%). More than half of respondents working in farm crops, fishing, livestock, construction, natural resource mining, energy, and wholesale and retail trade acquired their skills on the job. Some said they learnt some of their skills from ‘foreigners,’ for instance travelling livestock traders or skilled technicians working from other parts of Kenya working at local construction sites. Relatives also taught skills in livestock, natural resources, mining and energy, as well as beauty and cosmetics.

Discussions with community members clearly reveal that skill acquisition limits them to casual work only. The self-employed can only offer unskilled labor on farms, in loading/offloading trucks, or operating *bodabodas*, for example. Communities have few opportunities to learn new technologies, which limits their chances of getting skilled jobs outside of their county. Limited skills have been reported as a major constraint to growth of priority sectors like livestock, fisheries, crops, jua kali and the service industry in general. For the sectors to create more jobs, the local labor force needs new skills. These include developing fishing and fish processing, agribusiness, livestock finishing and trading, beadwork, and basketry, among others.

Sector	Attended a skills training course	On- the job learning (informal)	Formal apprenticeship	Passed to me from my relatives
Crops	13%	63%	25%	13%
Fishing	25%	63%	13%	13%
Livestock	0%	65%	0%	42%
Beauty and Cosmetics	25%	25%	0%	50%
Construction	45%	50%	5%	5%
Hospitality and Tourism	14%	43%	14%	29%
IT/Telecommunication	60%	40%	0%	0%
Jua kali	40%	40%	4%	17%
Natural resource, mining, energy	0%	50%	0%	50%
Trade (wholesale and retail)	13%	61%	4%	30%
Transport (bodaboda)	15%	35%	15%	35%

**Table 36: Pathways for Skills Acquisition by Different Sectors**

#### Enrollments patterns at vocational training institutions

Interviews indicated that people turn to VTCs to learn tailoring, plumbing, carpentry, baking, and hairdressing. This is consistent with enrolment data at the VTCs. Four public VTCs participated in this study from Turkana, plus the one active VTC in Samburu. These are Kalokol VTC, Lokori VTC, Lodwar VTC, Turkana East VTC, and Maralal VTC. A full list of VTCs and related institutions is in Annex 6. Analysis of data from current enrollments follows. In Turkana, 65% of those enrolled are men, while in Samburu 63% were women.

Institution	Male		Female		Total
	Number	%	Number	%	
<b>Turkana County</b>					
Kalokol	101	57%	77	43%	178
Lokori	183	64%	104	36%	287

Turkana East VTC	65	81%	15	19%	80
Lodwar VTC	69	73%	26	27%	95
Total Turkana	418	65%	222	35%	640
Samburu					
Total Samburu	205	37%	346	63%	551

**Table 37: VCT enrollment, gender**

In Turkana, cultural influences steer men and women to different occupations, a trend not observed in Samburu. Men dominated enrollment in technical courses related to construction in Turkana, mainly masonry, electrical welding, plumbing and pipe fitting, and carpentry. In most of those four courses, all the students were men. A handful of women took plumbing and electrical wiring, but made up only 2-14% of the courses (Table 38). In Samburu, women enrolled in those courses in larger numbers, sometimes surpassing the men in courses like carpentry or plumbing and pipe fitting.

In Turkana, interviews revealed that there are cultural taboos preventing women from climbing buildings, which may explain why women avoided construction courses. Any support toward skills development should therefore take this into consideration. Key informant interviews also showed that locals are not keen to take jobs like masonry and boat construction, which are currently dominated by people from outside of the county. Behavior change communication could help to change these mindsets.

Course	Name of institution	No. of male	No. of female	Total	% male	% female
Masonry	<b>Kalokol VTC</b>	15	0	15	100%	0%
	<b>Lokori</b>	38	0	38	100%	0%
	<b>Turkana East VTC</b>	0	0	0	0	0
	<b>Lodwar</b>	4	0	4	100%	0%
	<b>Total Turkana</b>	57	0	57	100%	0%
	<b>Maralal VTC</b>	31	17	48	65%	35%
	<b>Kalokol</b>	7	0	7	100%	0%


Electrical Wiring and Installations	<b>Lokori</b>	45	5	50	89%	11%
	<b>Turkana E</b>	7	0	7	100%	0%
	<b>Lodwar</b>	19	3	22	86%	14%
	<b>Total Turkana</b>	78	8	86	91%	9%
	<b>Maralal VTC</b>	23	4	27	85%	17%
Welding and Fabrication	<b>Kalokol</b>	13	0	13	100%	0%
	<b>Lokori</b>	14	0	14	100%	0%
	<b>Total Turkana</b>	27	0	27	100%	0%
	<b>Maralal VTC</b>	0	0	0	0	0
Plumbing and Pipe fitting	<b>Kalokol</b>	9	1	10	90%	10%
	<b>Lokori</b>	45	1	46	98%	2%
	<b>Turkana E</b>	0	0	0	0	0
	<b>Lodwar</b>	20	2	22	91%	9%
	<b>Total Turkana</b>	74	4	78	95%	5%
	<b>Maralal VTC</b>	12	26	38	32%	68%
Carpentry and Joinery	<b>Kalokol</b>	7	0	7	100%	0%
	<b>Lokori</b>	0	0	0	0	0
	<b>Turkana E</b>	0	0	0	0	0
	<b>Lodwar</b>	1	0	10	100%	0%
	<b>Total Turkana</b>	8	0	8	100%	0%
	<b>Maralal VTC</b>	3	8	11	27%	73%

**Table 38: Skills Dominated by Men in VTC Enrollment**

Women dominated enrollment for beauty and hospitality, including garment making and fashion design; hair dressing and beauty; food processing and catering. For these courses, male enrollment is 6-23% in Turkana (Table 39). Some key informants said that men are not comfortable enrolling in these courses in Turkana, as such jobs are considered unmanly. Demand for these jobs will grow as towns expand, so behavior change communication could shift these attitudes.

Name of Skill	Institution	Male		Female		Total
		Number	%	Number	%	
Garment making & fashion design	<b>Kalokol</b>	2	10%	19	90%	21
	<b>Lokoro</b>	8	13%	53	87%	61
	<b>T/East</b>	0	0%	0	0	0
	<b>Lodwar</b>	0	0%	4	100%	4
	<b>Total Turkana</b>	10	12%	76	88%	86
	<b>Maralal VTC</b>	0	0%	36	100%	36
Hair dressing and beauty	<b>Kalokol</b>	0	0%	40	100%	40
	<b>Lokori</b>	3	13%	20	87%	23
	<b>T/East</b>	0	0%	0	0	0
	<b>Lodwar</b>	0	0%	5	100%	5
	<b>Total</b>	3	4%	65	94%	68
	<b>Maralal VTC</b>	6	5%	116	95%	122
	<b>Kalokol</b>	0	0%	0	0%	0
Food processing, catering, hospitality	<b>Lokori</b>	1	6%	16	94%	17
	<b>T/East</b>	0	0	0	0	0
	<b>Lodwar</b>	3	23%	10	77%	13
	<b>Total</b>	4	64%	26	36%	30
	<b>Maralal VTC</b>	26	29%	63	71%	89
Other female dominated courses in Maralal VTC	<b>Welding</b>	5	29%	12	71%	17
	<b>Carpentry</b>	3	27%	8	73%	11
	<b>Plumbing &amp; Pipe Fitting</b>	12	32%	26	68%	38

**Table 39: Skills where women dominate in VTC enrollment**



Of the interviewed students, 63% had graduated. Further results reveal that 16% had secured a job after graduating while 84% had not. Those who had secured jobs revealed that their jobs matched the skills they learned during VTC training.

Finances were the primary reason for drop-outs, (29%) followed by family responsibilities (29%). Covid-19 was also cited as a reason for dropping out of VTCs. Career guidance and counseling were offered to most students, while others received offers of internships. Some graduates, however, felt that this was not enough. More targeted support to potential graduates would be recommended, to ensure that skills acquired aligned with employment opportunities.

The main challenges with VTC programs had less to do with the content of the programs and more to do with the externalities, from worry about finances, the distances that were needed to travel to access schooling, and the need to find balance between classes and the rigors of daily lives. Equally, the move from theoretical classroom work to actual practical sessions was found wanting by most of the interview subjects.

### **Recommendations for Improving Skills Development from Perspective of Leavers**

Recommendations from students included a request for better equipment in the classroom setting and the possibility of VTC institutions instituting a loans program that would provide graduates with modest capital to set up their own businesses. Improved opportunities for internships; distance learning; and shorter courses were also recommended. Some of the female students urged the VCT centers to consider providing child care in order to allow a greater range of women to participate in the courses. Overall recommendations also included a request for improved career counseling and for training to be provided in local languages to facilitate uptake of information.

#### **Challenges in acquiring skills**

1. **Distance and location:** All the training institutions are in towns, posing a challenge to communities in the interior. At least 40% of respondents reported distance as the main challenge during training. Only Lodwar VCT in Turkana offers boarding.
2. **Cost:** Even at government centers, students must pay fees. In Turkana, these are KES 18,000-20,000 per term for institutions outside of Lodwar. At Lodwar VTC, fees are KES 28,000. At least 60% of respondents said fees were a major obstacle to vocational training.
3. **Balancing family responsibilities:** In focus groups, respondents said their large families need them to work daily to keep up with financial obligations. Respondents raised concerns about the length of courses, saying they need training that doesn't keep them from their families for too long.
4. **Perceived value:** Many participants said that after training, they struggled to find a job or raise capital to start a business. Some 52% said they lacked capital and another 35% lacked equipment to engage in self-employment.
5. **Other challenges:** These included a lack of marketing skills after training (13%), balancing family chores with training (13%), accommodation (12%), length of the course (6%) and



childcare during the course (3%). These center on program design, with very limited support to transition to the labor market.

#### Skills demanded by the target group

Business management skills are the most requested, by 40% of women and 41% of men. Second for women was catering and food production (28%) and then dress making/tailoring (20%). For men, machine repair and maintenance came next (41%), followed by computer and information technology (18%), pipe fitting and plumbing (15%), and dress making/tailoring (13%). Table 40 summarizes these findings.

Type of Skills	Female	Male	18-24 Yrs	25-35 Yrs	36-50 Yrs	51-60 Yrs	Above 60 Yrs
Numeracy	4%	1%	0%	0%	9%	0%	0%
Language	0%	4%	0%	4%	4%	0%	0%
Business management skills	40%	41%	31%	44%	39%	33%	100%
Plumbing and pipe fitting	0%	15%	6%	10%	17%	0%	0%
Farming skills	8%	6%	0%	4%	13%	33%	0%
Housekeeping skills	4%	0%	0%	0%	0%	33%	0%
Catering and food production	28%	1%	13%	2%	22%	0%	0%
Dress making/Tailoring	20%	13%	4%	4%	0%	0%	0%
Hair dressing and beauty	4%	0%	0%	4%	0%	0%	0%
Machine Repair and maintenance	4%	41%	25%	44%	13%	0%	0%
ICT	4%	18%	25%	12%	13%	0%	0%

**Table 40: Skills Considered Important for the Future by the Target Group**

Among unskilled workers, business management skills are the most demanded by both waged and self-employed persons. Other skills they wanted include farming skills (21%), catering and food production (19%), machine repair and maintenance (16%), and language (15%).

NGOs have developed multiple and varied models of vocational training that have delivered successful results in the region, reaching the unskilled and semi-skilled with targeted, effective training. We explore several such models below:

*PARTICIPATORY LABOR MARKET SYSTEMS ASSESSMENT IN SAMBURU AND TURKANA COUNTIES*

## The Latia Skills Development Model

Latia Agribusiness Solutions runs an Agripreneurship Institute that is accredited as an Agriculture Technical Vocational Education and Training college. The institute's model ensures 70% practical training and 30% theoretical training, on Latia's 60-acre farm in Isinya. The institute produces skilled workers for the agriculture sector, as well as short courses for practicing farmers and farm workers. The courses they provide include:

1. Farm managers with at least a bachelor's degree
2. Farm operators with at least a diploma
3. Spray technicians
4. Irrigation technicians

The uniqueness of the Latia training model is its revolving fund for the trainees. Once trainees have been admitted, those who need financial support are given 100% tuition financing from the revolving fund. During the training, they are provided with a small plot to apply their learning to practice, growing crops including tomatoes and other vegetables. When those crops are ready for harvest, Latia facilitates market access through a partner, Twiga Foods. What is earned from the sale of the crops is applied to the loans offered for school fees, with the balance provided to the student as income. This ensures all the interested agri-preneurs can access training, regardless of their ability to pay.

## The Ujuzi Manyattani Training Model by Northern Rangeland Trust

In NRT conservancies, this program serves vulnerable, mainly illiterate community members. The modules cover masonry, mobile phone repairs, motorcycle repairs, hairdressing and physiotherapy, catering, food processing and beverages, as well as tailoring. NRT partnered with Kiirua Vocational Training Centre and the Laikipia North Training Centre to teach people on site, using local facilities in the *manyattas*. This model has provided skills to 750 *morans* and young women since 2019. At graduation, trainees receive equipment and materials to get into self-employment. The graduates receive certificates so they can find employment outside of the community.

## Swisscontact's Skills Development Model

The Skill 4Life project combined outreach to refugees and the host community. The project integrates life skills into a technical model, providing business start-up support from a community-based finance system to usher in earning opportunities quickly. Trainees are grouped together from the beginning, acquiring skills that they can use to support both their own enterprise and other group members, through Mavuno Groups.<sup>31</sup> Trainers are drawn from the private sector to ensure that the skills that are learned can be applied in the labor market, while

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<sup>31</sup> A community-based saving and lending scheme

also providing mentorship and support post-training. The training provides all materials needed for their trades, which means that the start-up capital that often deters others is provided from the outset.

### Recommendations to Meet Skills Gaps Within the Target Groups

The below table provides an analysis of the existing skills gaps, and strategies to address them

#### **Livestock (Samburu and Turkana)**

##### **How is the target group involved**

They work as livestock traders, trekkers and herding for pay. With experience, they conduct eyeball appraisals to determine carcass yield. Livestock herding is under traditional herding practices.

##### **What we are addressing**

Skills development should focus on market-oriented production and marketing. Key skills required include:

- Finishing/fattening livestock
- Market analysis skills, for instance purchasing livestock during the dry seasons, fattening and selling
- Financial management skills to make good investment decisions, including how to handle credit
- Modern livestock herding practices for pastoralists in feeding and range management
- Livestock and range management courses, not currently offered at VTCs

##### **Support functions needed for sustainable participation of the target group in the labor market**

- Well-functioning livestock markets to continue anchoring the livestock traders and women enterprises. The market needs infrastructure for trade and services.
- Well-managed and inclusive livestock marketing associations to effectively use money raised from co-management to pay for services needed by traders and market participants. The LMAs need professional management for growth.
- Peace building and security enhancement efforts by the community through the LMA and the county. External traders are drawn to safe markets.
- Financing of traders both under the current model and for those who will venture into livestock fattening
- Babysitting services for nursing mothers

##### **Important actors to engage**

- Livestock Marketing Associations, which both receive capacity-building services and provide an enabling environment through effective market management
- Livestock traders willing to venture into livestock finishing
- County government, which can provide market infrastructure and co-manage the market
- Financiers for livestock traders investing in the livestock fattening as well as current trading model
- Ranchers in Samburu to offer practical learning during the herders training model
- VTCs, private or public, willing to incorporate modules on best herding practices for pastoralists

## Fisheries (Turkana)

### How is the target group involved

They work in fishing, processing (cutting, splitting, drying), packaging, loading, and small-scale trading.

### What we are addressing

Workers learned their trades through exposure and passive learning. Their skills are traditional with limited infrastructure for improved technologies. The Beach Management Unit hires people from Kisumu and Mombasa to make fiber boats, repair engines, and do other mechanical work. Specific ropes are used to package fish for export, mainly sourced from Kisumu. The specific skills required include:

- Motorboat driving
- Fiber boat building
- Boat engine repair
- Sewing and repair of nets
- Best practices in harvesting and handling of fish
- Business skills among actors
- Women could learn to making the ropes used for packaging fish for export

### Support functions needed for sustainable participation of the target group in the labor market

- Organization of actors to negotiate prices with lead firms on behalf of members, while mainstreaming quality among members.
- Improved access to fishing gear and post-catch infrastructure like drying equipment, which would increase quality and prices for fish.
- Efficient beach management to use resources efficiently and provide the required services.
- Access to affordable financing for traders, starting by setting up VSLAs.

### Important actors to engage

- Beach Management Units as service providers along the lake
- All actors in the fish value chain along the lake
- Lead firms, foreign importers and major local traders
- Providers of financial services
- Department of fisheries

### **Agro-pastoralism (Turkana and Samburu)**

#### **How is the target group involved**

They mainly provide casual labor to farms as well as small-scale farmers.

#### **What are we addressing**

Gradually introduce commercialized agriculture with high-demand crops, and create a training program for entrepreneurs willing to invest in the package. The package will include:

- Agronomic practices
- Farm planning to coincide with market demand
- Farming as a business
- Post-harvest management
- Farming as business and marketing skills

#### **Support functions needed for sustainable participation of the target group in the labor market**

- Develop input supply system
- Develop service providers for services like spraying, weeding, mechanization, etc.
- Develop community-based aggregators, linked to lead firms
- Post-harvest handling facilities
- Improve access to finance
- Effective management of irrigation schemes in Turkana
- Develop a revolving fund for training agripreneurs, managed by a training institution. There should be a ready market for trainees to release the money to revolve.

#### **Important actors to engage**

- Department of Agriculture
- Lead firms in marketing
- Input suppliers
- Community aggregators
- Community service providers
- Agribusiness training institutions
- Financial institutions
- Organizations of producers

## **Bead work in Samburu**

### **How is the Target Group involved**

They make beads for shops in towns and to sell themselves in markets. Some are contracted by retailers to make beads. Some retail beads in livestock markets and towns, or operate as wholesalers to external buyers.

### **What are we addressing**

Bead making is learned through observing friends and relatives, but sometimes clients want new designs that have to be created. The skills needed include:

- Incorporate new knowledge with existing skills to create new designs desired by buyers
- Quality enhancement, especially the finishing
- Organizational skills
- Entrepreneurship skills

As bead makers improve quality, they need support to form organizations that connect to the market.

### **Support functions needed for sustainable participation of the target group in the labor market**

- Lead firms to anchor local producers and build capacity
- Raw materials, especially leather belts which currently are bought in Nairobi. Beads delivered from Nairobi. Local suppliers are more expensive.
- Horizontal cooperation for improved bargaining power in the marketplace
- Access to affordable financing to enable producers to supply required volumes

### **Important actors to engage**

- Lead firms, either exporters or local traders linked to exporters
- Producers
- Design artists
- VTCs
- Financial institutions
- Raw material suppliers
- Chamber of Commerce

## **Basketry in Turkana**

### **How is the target group involved**

They weave and sell baskets, with some weavers in rural areas contracted by traders in towns.

### **What are we addressing**

Basketry requires indigenous knowledge learned by watching others work. New skills would diversify the products and capture more than one market segment. Currently weavers service a small home décor segment that wants thick, heavy baskets.

- Introduction of new designs
- Skills on products other than home décor to diversify their offering
- Business skills including costing/pricing strategies
- Negotiation, communication, and marketing
- Financial management

### **Support functions needed for sustainable participation of the target group in the labor market**

- A lead firm to anchor local producers, introducing new designs and products
- Strengthening horizontal linkages for bargaining power in the marketplace
- Art training opportunities in VTCs
- Availability of workshops for local producers

### **Important actors to engage**

- Lead firms, either exporters or local traders linked to exporters
- Producers
- Design artists
- VTCs
- Chamber of Commerce

## **Transport**

### **How is the target group involved**

They are mainly motorcycle riders, either as employees or self-employed. They provide key business support for MSMES across all value chains and sectors.

### **What we are addressing**

Few motorcycle riders have licenses. The following skills are needed:

- Riding skills /license
- Advanced riding skills
- Basic knowledge of mechanics
- Basic knowledge of first aid and personal safety in case of accident
- Financial management

### **Support functions needed for sustainable participation of target group in the labor market**

- Well managed organization for self-regulation, management of partnerships (e.g., with NTSA, St John Ambulance, NHIF, etc.) and to invest in other business ventures for members
- Training opportunities for riders in VTCs

### **Important actors to engage**

- Bodaboda associations
- NHIF, NTSA, St John Ambulance, insurance companies
- VTCs
- Insurance companies
- Financial institutions

## **Traders - retailers**

### **How is the target group involved**

They mainly run small businesses in towns.

### **What we are addressing**

Skills are learnt informally, without business systems or a plan for growth. Most businesses are similar because they tend to learn from one another, which heightens competition. The following skills are needed

- Business skills through mentorship
- Organizational skills for existing groups to manage VSLAs effectively

### **Support functions needed for sustainable participation of target group in the labor market**

- Business development service providers
- Affordable finance

### **Important actors to engage**

- BDS providers
- Financial Institutions

## **Construction**

### **How is the target group involved**

They work as casual laborers at construction sites. A small proportion are unskilled artisans, mainly plumbers, electricians, painters, and a few masons.

### **What we are addressing**

Better skills will lead to better wages and job opportunities with large construction companies, locally and outside the county. This includes certifying current skills that were learned informally.



### **Support functions needed for sustainable participation of target group in the labor market**

- VTCs to offer new training models, including courses at manyattas, and short courses to certify existing skills
- Private construction companies willing to provide mentorship
- Revolving fund/bursary for training
- Financing mechanisms for trainees to start their self-employment ventures
- Career guidance during training
- Organization among the artisans into trade associations to regulate members, ensure professionalism, and negotiating job placements

#### **Important actors to engage**

- Private construction companies
- VTCs
- Financial institutions
- Career guidance centers

### **Security services**

#### **How is the target group involved**

They are mostly men working as guards or watchmen in towns, employed by security companies, private companies, or homes

#### **What we are addressing**

They use traditional defensive skills used in communities, but these require upgrading to include customer service, communication, and other basic skills that can help them get jobs in the formal security sector. Local security firms are quite small with limited capacity to continuously recruit, train, and deploy security guards.

### **Support functions needed for sustainable participation of target group in the labor market**

- Local security firms as agents for lead firms
- Lead security firms offering training and linkage to employment opportunities

#### **Important actors to engage**

- Lead security firms
- VTCs

### **Day care/babysitting**

#### **How is the target group involved**

Women in urban areas provide day care services to other women in their communities.

### **What we are addressing**

Most of these service providers have no formal training and care for up to 16 children a day. These businesses have no structures and rely on one person. The following skills are required:

- Full training, including childcare, safety, and first aid
- Communication skills
- Interpersonal skills
- Child skills
- Organizational skills

Caregivers currently work within communities, but with training could serve other market segments. Training should focus on women who currently provide this service at a small scale.

### **Support functions needed for sustainable participation of target group in the labor market**

- Provision of day care facilities near the workplaces of nursing mothers, including livestock markets, beaches, and other markets. This will allow nursing mothers to work and still breastfeed while their babies are cared for.

### **Important actors to engage**

- County government for allocation of premises
- Business associations to help set up the premises
- Lead day-care firms to provide training
- VTCs to adopt the day-care training in their curriculum

## **Hospitality/tourism - housekeeping services**

### **How is the target group involved**

Women work as housekeepers cleaning homes, doing laundry, and babysitting. They also work as housekeepers in local hotels.

### **What we are addressing**

Few have had any training, except for those who received on-the-job training. They need a whole range of housekeeping skills including laundry, cleaning, meal preparation, organizational skills, time management, customer care, and communication.

### **Support functions needed for sustainable participation of target group in the labor market**

- House help bureaus to provide training and linking the trainees to the market

### **Important actors to engage**

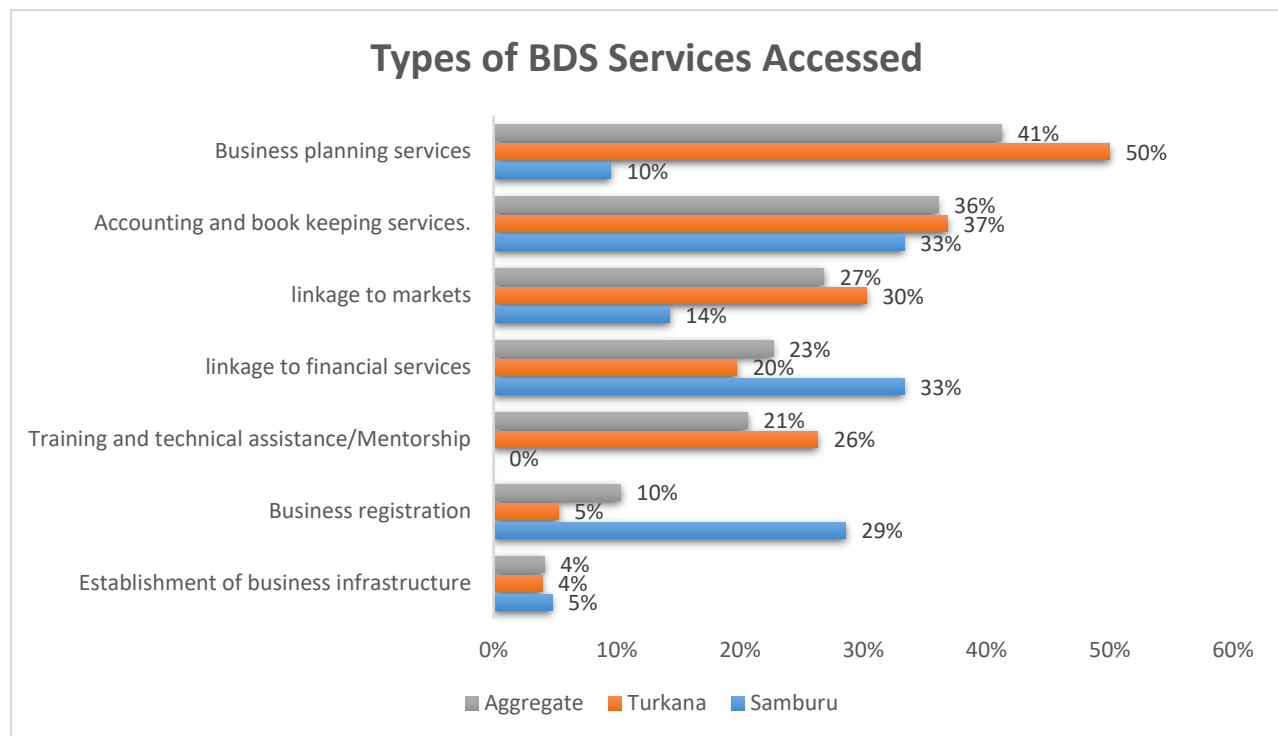
- House help bureaus
- Hotel industry as potential employers

- VTCs to incorporate the housekeeping training in their curriculum

## SUPPORT FUNCTIONS

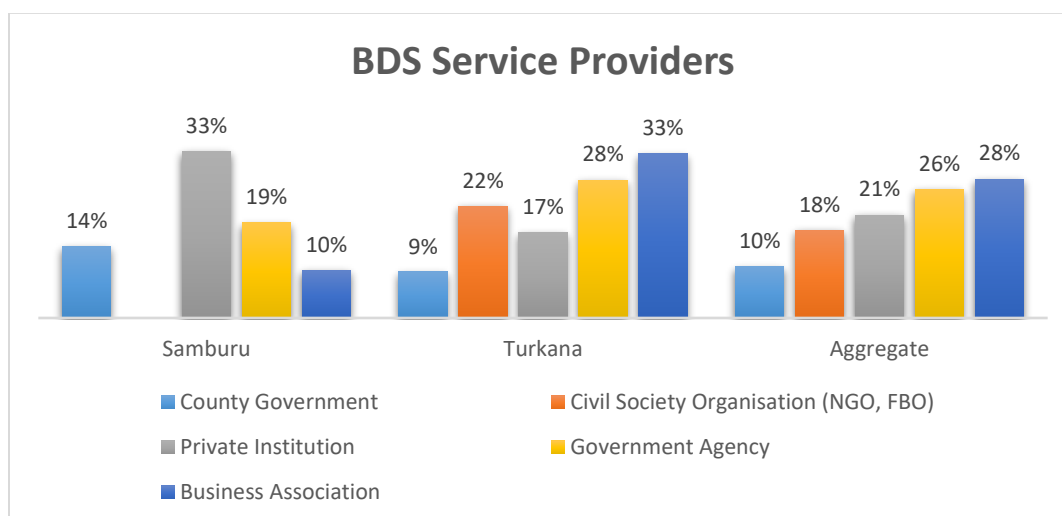
### Access to BDS Services

Among the MSMEs sampled, only 20% in Turkana and 17% In Samburu have ever accessed BDS services. A lack of awareness that such services exist is the key driver for lack of access. Cost was also identified as a key inhibitor of access, which suggests a need to develop a sustainable BDS delivery model.



**Fig 30: BDS services**

In Turkana, BDS services are typically offered by business associations, government or NGOs. A center that was under a program funded by UNDP was the largest in Lodwar has since closed, which has left a gap in that market. In Samburu, the main providers are the private sector and government, consistent with the low membership in business associations in the county.



**Fig 31: BDS Service providers**

MSMEs were asked which services were most important to business growth. In Samburu they prioritized access to financial services (42%), linkage to markets (43%) and business mentorship (21%). In Turkana, they prioritized financial services (39%), linkage to markets (37%), business planning services (30%), and accounting/bookkeeping services (30%). More than half were willing to pay for these services (57% in Samburu and 67% in Turkana). This implies that USAID Nawiri can use a market system approach that supports the private sector, instead of offering free services.

Type of Service	Proportion of MSMEs in need		
	Samburu	Turkana	Aggregate
Tax and statutory compliance	1%	4%	3%
ICT systems development and support	8%	3%	4%
Linkage to inputs	3%	6%	5%
Refresher trainings	5%	7%	6%
Business registration	8%	8%	8%
Training and technical assistance	18%	14%	15%
Business mentorship	21%	15%	16%
Accounting and bookkeeping	7%	32%	25%
Business planning	15%	35%	30%

Linkage to markets	43%	34%	37%
Linkage to financial services	42%	39%	39%

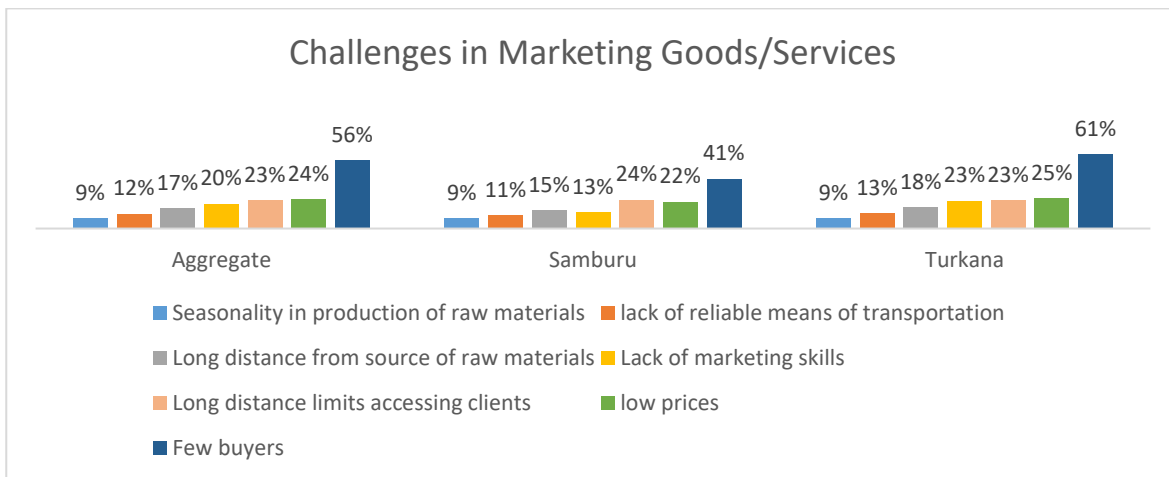
**Table 41: Preferred BDS services**

The services selected by the MSMEs aligns with constraints that limit their businesses, as shown in Table 42. The top two constraints were inadequate capital and lack of markets. This suggests that USAID Nawiri could address the challenges of market access through a market systems approach, while facilitating access to affordable financing.

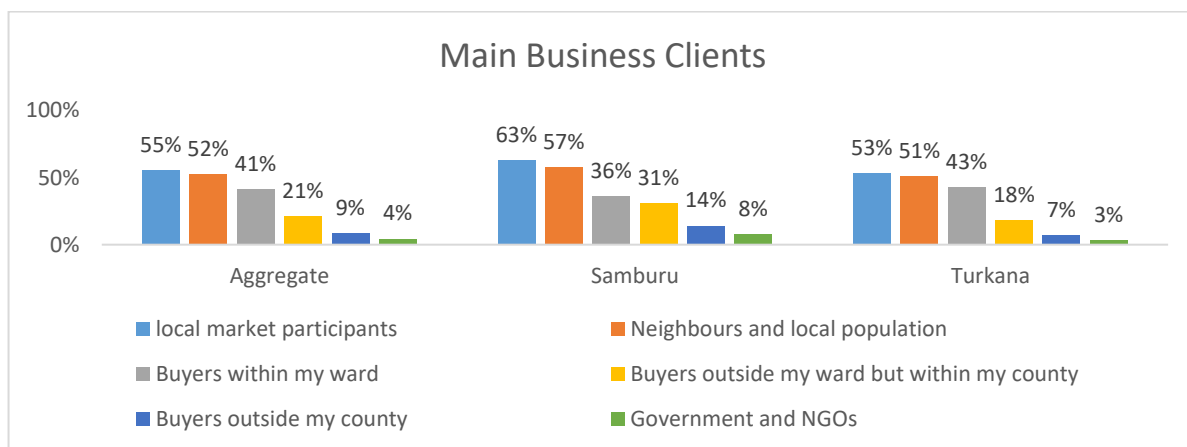
Description	Aggregate	Samburu	Turkana
Inadequate Capital	67%	61%	69%
Lack of market	33%	20%	38%
Increased Competition	25%	29%	24%
Insecurity	11%	24%	7%
Poor roads	9%	14%	8%
Lack of required skills (own)	6%	6%	6%
Unfavorable weather	5%	9%	4%
Lack of skilled labor to employ	4%	6%	3%
High cost of operation	3%	5%	3%
Decreased demand of products	3%	1%	4%
Lack of market information	3%	2%	3%
Unfavorable government regulations	3%	4%	3%
Heavy license costs by government	3%	4%	3%
Lack of electricity	2%	6%	1%
Lack of technical knowhow	2%	2%	1%
Frequent interruption of electricity	2%	4%	1%
Inadequate water supply	1%	1%	2%
Political instability	1%	2%	1%

**Table 42: Constraints to Business Growth as Reported by MSMEs**  
*PARTICIPATORY LABOR MARKET SYSTEMS ASSESSMENT IN SAMBURU AND TURKANA COUNTIES*

The ways marketing affects businesses are shown in figure 32. Most MSMEs (41% in Samburu, 61% in Turkana) reported the challenge was few buyers since their primary target markets are local. Farm and basketry/beadwork are lacking effective business organizations to facilitate and negotiate joint ventures in outside markets. In other sectors, duplication of ideas leads to competition among MSMEs, which could be resolved through business mentorships and new skills to diversify their products and services.



**Fig 32: Challenges in marketing goods and services by MSMEs**



**Fig 33: Target markets for MSMEs**

## Access to Finance

### Savings and Credit Cooperatives (SACCOs)

These are the largest formal financial institutions in the two counties. Samburu has nine SACCOs with 13,224 account holders and total deposits of KES 618 million in 2018<sup>32</sup>. They disburse an average of KES 60 million in loans each month, with an outstanding loan portfolio of 965 million. Interviews with MSMEs revealed that they prefer SACCOs to banks since they involve less bureaucracy and offer lower and more stable interest rates. Some traders said their credit lines were limited by their low incomes, which limits the amount they can save.

SACCOs in Samburu include:

- Dumisha Sacco, for teachers
- Supa Sacco, the largest SACCO with branches in Maralal, Baragoi, Wamba and Archers Post
- Tower Sacco, for teachers and traders, based in Nyandarua county, with a branch in Maralal
- Transnational Sacco, based in Tharaka Nithi with a branch in Wamba)
- Skylers, for traders
- Nyuat, a new SACCO for traders
- Pamoja, for traders
- Unison, based in Laikipia, for traders and teachers
- Transport SACCOs, including Samburu Liners for matatus and bodaboda SACCOS

Turkana has about 10 SACCOs, and like in Samburu, traders prefer them to banks. However, in addition to credit lines limited by their low incomes, people in Turkana also have a cultural aversion to borrowing money. With offices mainly in towns, much of the county is underserved. They are therefore largely serving established businesses and formal employees in main urban centers.

Turkana's SACCOs include:

- Turkana Transport SACCO Society Ltd
- Nakeiton SACCO Society Ltd
- Lortit SACCO Society Ltd
- Angazamali SACCO Ltd
- Turkana West Integrated SACCO Society Ltd
- Ngakoriyek SACCO Society Ltd
- TUCOMA SACCO Society Ltd

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<sup>32</sup> Samburu CIDP, 2018-2022

- Echami Aito SACCO Society Ltd
- Elimu SACCO
- Kapenguria SACCO

### Village Savings and Loaning Associations (VSLA)/table banking/merry go round

The study established that the VSLA/table banking model is the most popular saving and credit scheme across MSMEs and people earning wages. Low-income groups can access financing without collateral. Members can consistently save as little as KES 100 a day in this model, with VSLAs formed either by a registered self-help group, a civic group, an informal “merry go round,” or business associations. These are the most appropriate entry point for USAID Nawiri, with a view to strengthening VSLAs so they can leverage financing from larger institutions as well as government affirmative funds. The VSLA model can build significant social capital to foster development, as seen in the following case study for a women’s group in Samburu.

#### **Lekuru Market VSLA Case Study**

Most traders at the Lekuru market are women, as men focus on livestock trade. The women form groups commonly known as *chama*. Every Sunday, each trader contributes KES 1,000 from her earnings that weekend. When they meet, all the collected money is given to a member facing financial difficulties. The benefiting member is supposed to use the money to boost her business.

The chama also negotiates with merchants who bring in goods so members can get stock on credit. At the end of the market day, members will reconcile with the trader by either returning unsold goods or paying cash. The women used this system to buy a flock of goats, which are reared by a member. Once the goats are ready, they are sold at the market. The principle is used to buy another flock of young goats, and the women share the profit.


The group has a welfare fund to help members in need. For instance, when a member gives birth, the groups bring a month’s supply of food, detergents, and clothes for the newborn and the mother. After that month, they help the new mother resume her trading. This model has enabled women in Lekuru village to work in the market more easily.

### Banks

Each county has at least three banks. In Turkana, Kenya Commercial Bank (KCB), Cooperative Bank, and Equity Bank all have branches in Lodwar, while KCB also has a branch in Lokichogio, and Equity Bank has one in Kakuma. The Kenya Women Finance Trust, a microfinance institution, is also located in Lodwar. Mobile bank agents serve Turkana East.

In Samburu, KCB, Equity Bank, and Post Bank all have branches in Maralal. Equity has a branch that operates as an agent in Archer’s Post. Micro-finance institutions including Faulu Kenya and Kenya Women Finance Trust are in Maralal. Interviews with the respondents revealed larger businesses, like wholesale and retail chains, in the main towns find it easy to





access bank finance. These traders prefer banks because they need to access larger amounts of money, without building savings as collateral.

### Government funds

These include affirmative funds like the Women Enterprise Fund, Youth Enterprise Fund, and Uwezo funds.

### **Youth Enterprise Fund (YEF)**

YEF offers loans to youths, mostly as groups but also as individuals. Before issuing loans, YEF conducts training on financial literacy, basic group dynamics, entrepreneurship, competition, and available opportunities. In pastoral zones, YEF also trains groups to diversify into poultry farming and other businesses. They also promote food security by offering zero-interest agri-business loans.

Most of the groups that received loans work in livestock trading or fattening in pastoral zones, with a few others in poultry farming. Town-based groups tends to perform better, while groups in the interior pastoral zones have a very high default rate. The YEF has also observed that mixed groups more reliably repay loans.

Servicing of the loans is at 60-70%. Groups that received YEF training have better repayment records. Many groups divide the loans among members who pursue individual projects but service the loan collectively.

Conditions for a YEF loan are:

- A 70% youth membership in a group
- Six months bank statements
- Registration certificate
- Group officials must be younger than 35
- The group must attend YEF training

YEF markets its loan products online as well as during their trainings and workshops.

Loans are zero-interest, but administration fees are charged at 5% for groups and 6% for individuals.

While YEF loans are easier to access and more popular than commercial loans, obstacles that continue to confront youth in accessing finance include:

- Some groups can't meet the 70% youth membership requirement
- Many have inactive bank accounts, and can't get statements
- Not all groups have enough assets for collateral
- Not all youth groups have registered at the office of the registrar

- Group officials are usually older, but the requirement for all leaders to be under 35 does motivate groups to hold frequent elections and change officials
- Some groups don't want to undergo the YEF training

Descriptions	2018/2019	2019/2020	2020/2021
Groups	14	16	29
Individuals		1	2
Amount disbursed (Groups) KES	1,100,000	2,055,000	2,872,000
Amount disbursed (Individual) KES	0	310,000	200,000
Total Loans	1,100,000	2,365,000	3,072,000

**Table 44: YEF Loans Application in Samburu County**

### **Women Enterprise Fund (WEF)**

The WEF is under the Ministry of Public Service, which aims to grant loans at the grassroots level, specifically targeting women. Their Dhamini Loan assists widows to register and run businesses. Four weeks before the loan is disbursed, the women undergo training on entrepreneurship and other topics. The training also acts as a collateral to the loan.

Because the loans aim to promote food security through employment, most groups are doing crop farming, beekeeping, or poultry projects. The WEF also advances loans to individual women as LPO finance for tenders and other county projects. The loans are interest-free save but have a 5% administration fee that is charged up front. The LPO finance loan attracts an interest rate of 1%.

WEF loans are disbursed in cycles, depending on the group's loan status. New groups fall in the first cycle and graduate up as they make repayments.

The following are the loan conditions:

- Groups need a registration certificate
- Groups need at least 10 members
- Group must be 70% women
- Three months bank statements
- Attend WEF training on entrepreneurship and record keeping

The WEF markets its loan products through the WEF-SOKO online platform, which links producers in the county to clients in Nairobi and other areas in Kenya.

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In Samburu, WEF says 98% of groups servicing their loans. Below is WEF’s loan disbursement history in Samburu:

Description	2018	2019	2020	2021
Groups	215	111	300	111
Amount disbursed (Groups) KES	8,110,000	17,625,415	28,355,571	20,000,000

**Table 44: Trends in the Disbursement of WEF loan in Samburu County**

### Turkana County Funds

Turkana offers two financing mechanisms for SMEs. The biashara fund was established in 2014 under the Trade Ministry. The Ministry of Gender and Youth Affairs has a KES 65.5-million revolving fund to provide seed capital for youth enterprises. Initially this was given as a grant, but the county assembly changed it to a revolving fund in 2016. During the first rounds, the fund received 937 applications, and 659 were funded. Those who did not qualify often had defaulted on past government loans or lacked the required documentation. To qualify, a group must be at least three months old and registered with the Ministry of Social Services. They needed to provide a list of members, copies of their IDs, and a business proposal. Lessons from these funds include:

1. Some SMEs didn’t do the business they proposed. Financiers should evaluate business ideas more closely.
2. Most groups shared the loan among members, which brought challenges for repayment.
3. Groups need basic entrepreneurship and financial management skills to manage the loan.

### Other mechanisms for financing businesses

Some people raised money by **selling assets**, usually livestock.

**Borrowing from family and friends** is a common practice among first-time business owners.

Others used **personal savings** and waited to start their business until they had enough cash.

**Credit from suppliers** was particularly important for bodaboda entrepreneurs.

**Grants and donor programs** sometimes had revolving funds to finance specific enterprises. The Kakuma Kalobeyi Challenge Fund and the Boma Project are examples of such initiatives. To be successful, the revolving funds must be tied to a value chain or enterprise where beneficiaries actively work.

## **Access to production inputs and services**

As seen in the sector analysis, input markets for agriculture and fisheries are not developed. Producers have to order from main towns, which increases costs of production. USAID Nawiri could help develop a business case for key inputs and services, which would improve efficiency in the production and create new job opportunities.

## **Policy and regulatory framework**

Both national and county governments have put in place policy and regulatory framework governing labor, SMEs, youth empowerment, and sectoral laws. This study found that less attention has gone to implementation and addressing the constraints to MSMEs/youth employment, such as physical infrastructure, access to finance, high cost of doing business, limited market access, and inadequate capacity to develop new products.

Policy and regulatory issues identified in this study include:

- Cheap maize imports affect local production in Turkana
- Poor handling of veterinary drugs. High temperatures in the county could degrade the drugs, and locals suspect they are mishandled.
- In Samburu, the issuance of title deeds will boost agriculture by allowing farmers to make permanent improvements and to use their titles as collateral for loans. This will also reduce communal lands for migrating livestock, encourage sedentary farming.

## **Business associations**

Business associations ensure compliance and ethical standards by members. Bodaboda associations involve hundreds of riders to ensure harmony, legal compliance, and accountability to investors. Irrigation committees and beach management units ensure prudent use of resources and management of infrastructure. Livestock marketing associations collect revenue, maintain infrastructure, and work with security agents to ensure their markets attract external buyers. VSLAs and informal chamas apply pressure to their members to abide by lending rules. Business groups are key structures in the labor market system, and they need to be strengthened and supported to effectively discharge their mandates.

## **IMPLICATIONS OF LABOR DYNAMICS ON NUTRITION OUTCOMES**

### **Incomes from the main livelihood activity**

Results show a statistically significant difference ( $t=7.17$  (244),  $p<0.05$ ) between the monthly incomes of the waged and the self-employed in both counties. The self-employed on average earn more (Samburu = KES 19,646, Turkana = KES 20,346) than workers earning wages (Samburu = KES 10,110, Turkana = KES 13,842). Nearly one third of the waged employees in Samburu worked in the informal sector, often in beadmaking and tailoring. Another 16% were employed in construction as masons and casual workers. In Turkana, 19% worked in construction, 16% in the informal trades, and 12% in the crop farming industry as laborers and farm managers.

In Samburu, about one-quarter of the self-employed were in Jua kali or livestock, while 17% worked in trade. In Turkana, leading self-employment sectors were Jua kali (22%), trade (21%), and crop farming (17%).

#### Other incomes

Other sources of income cited by households were business and trade, sale of livestock, crop farming, government subsidies, sale of livestock products like milk, pensions, NGOs support, remittances and transfers, and wages/salaries. On average, households had at least one additional source of income, beyond their main work. In Samburu's agro-pastoralist zone, households had on average two additional incomes. The incomes, as shown in table 47, include incomes by any household member.

In Samburu, 23% of the households sold their livestock to supplement incomes, earning an average of KES 164,209 annually. Some 20% were involved in business and trading, which earned KES 65,488 a year. Remittances and transfers from relatives in other towns were received by 2% of households, for an average of KES 17,944 in a year.

In Turkana, transfers and remittances were also received by 2% of the households, for an average of KES 16,711 a year. Some 21% of households were involved in business and trade, earning an average of KES 96,878 in a year. Table 47 gives a breakdown of the income sources in each livelihood zone per county.

Sources of Income	Aggregate		Samburu		Turkana	
	P (%)	Income	P (%)	Income	P (%)	Income
Wages and Salaries	13%	115,175	15%	123,033	13%	112,001
Livestock products (milk)	12%	10,975	14%	23,545	11%	7,182
Crop farming income	10%	14,681	11%	25,836	10%	11,049
Sale of own livestock income	13%	71,440	23%	164,209	10%	23,563
Dividends/bonus	1%	21,667	0%	-	1%	21,667
Remittances and transfers	2%	14,569	2%	17,944	2%	13,097
Businesses and trading activities	21%	94,270	20%	65,488	21%	96,878
Pension	0%	24,000	1%	24,000	0%	-
NGOs support	1%	16,880	0%	-	1%	16,880
Government subsidies	5%	8,263	1%	24,000	6%	7,139

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**Table 47: Income from other sources per county**

### Average monthly income

All sources of income were combined to determine the household's average monthly income. This provides a basis for examining household incomes. Table 48 presents average household incomes, detailing the higher incomes for self-employed relatively to waged employees.

Source of Income	Samburu		Turkana	
	Self-employed (KES)	Waged employments (KES)	Self-employed (KES)	Waged employments (KES)
Income from employee	16,584	7,317	16,631	9,694
Income from Other sources	4,153	4,038	5,622	6,913
Total income	19,646	10,110	20,346	13,842

**Table 48: Monthly Household income**

### Household Income and Household Dietary Diversity (HDDS)

Household Dietary Diversity (HDDS) is a nutritional indicator measuring the diversity of foods in a household's diet. A correlation test determines the relationship of household income to dietary diversity of a household. Households with higher monthly incomes in both counties tended to consume more diverse meals in their diet compared to low-income earners.<sup>33</sup> The unskilled waged workers earned significantly less (KES 9,768) than semi-skilled (KES 15,291) or skilled workers (KES 21,424). This means unskilled wage earners are at a greater risk of malnutrition.

### Household income and number of meals

In Turkana, households with higher incomes were more likely to eat more meals ( $r = 0.240$  (310),  $p < 0.05$ ). In Samburu, no relationship was found between incomes and number of meals ( $p = 0.615$ ), meaning high- and low-income earners ate almost the same number of meals. But the HDDS indicated that low-income earners in Samburu were eating less nutritious meals compared to high-income earners.

Income	Samburu			Turkana		
	N	HDDS	Meals/day	N	HDDS	Meals/day

<sup>33</sup> Samburu ( $r = 0.221$  (141),  $p < 0.05$ ) and Turkana ( $r = 0.268$  (389),  $p < 0.05$ )

<= 1,000	3	3.7	2.0	7	1.9	1.9
1,000 - 31,000	107	3.9	2.8	310	2.2	2.2
31,000 - 61,000	22	4.1	3.0	49	2.7	2.7
61,000 - 91,000	7	5.6	3.0	11	3.3	2.6

**Table 49: Income and HDDS/Meals<sup>34</sup>**

### **Income per livelihood zone**

The results in the Annex 8 revealed statistically significant difference in households' monthly income across Turkana County's livelihood zones ( $f = 5.401$  (385),  $p < 0.05$ ). Urban households on average earned KES 31,415 a month, against KES 13,355 for agro-pastoral households. For Samburu County, urban households on average earned KES 24,754 in a month while agro-pastoral households earned KES 13,944.

With other factors held constant, urban households Turkana and Samburu were more likely to have a higher monthly income while the agro-pastoralist households tended to have the lowest incomes. However, the fishing and agro-pastoralist households had a statistically insignificant difference in their monthly incomes. They likely earned similar income every month.

### **Household income and HDDS per livelihood zone**

The HDDS of households was directly proportional to the income earned. But significant differences appeared across livelihood zones (Samburu  $f = 14.19$  (157),  $P < 0.05$ ; Turkana  $f = 12.87$  (527),  $P < 0.05$ ). Urban households with higher incomes had a higher HDDS (Turkana = 3, Samburu = 5) compared to agro-pastoralists (Turkana = 2, Samburu = 4) who has much lower incomes. Pastoralist households had high monthly incomes but still recorded a low HDDS in both counties (Turkana = 2, Samburu = 3), as presented in Annex 8.

County	Livelihood Zone	N	HDDS	Std. Deviation
Samburu	Agro-pastoral	21	4	1.287
	Pastoral	85	3	1.679
	Urban	54	5	1.228
	Total	160	4	1.612
Turkana	Agro-pastoral	172	2	1.280
	Fishing	79	2	0.912
	Pastoral	148	2	1.125

<sup>34</sup> The table has displayed results of the first 4 income groups where most of the households' incomes fell within.



Urban	132	3	1.698
Total	531	2	1.356

**Table 50: HDDS per livelihood zone**

### Seasonal income's effect on nutrition

Table 51 present show the seasonal variations in incomes, based on 2019 data from before the COVID 19 pandemic. The results revealed a significant difference ( $t = 7.01$  (114),  $p < 0.05$ ) in the average income of the self-employed in Samburu during the low and peak season. Self-employed household income reaches KES 17,032 per month during the peak season. The waged workers' incomes did not have a statistically significant difference ( $p = 0.325$ ) between the two seasons, although average incomes rose from KES 5,974 in low season to KES 6,105 in peak season. This implies that self-employed households are more vulnerable to seasonal changes, despite their higher monthly incomes. Labor market interventions should help them build risk management plans to cushion them during times of shocks. In Turkana, both self-employed and waged workers saw statistically significant difference in income (self-employed, ( $t = 3.5$  (294),  $p < 0.05$ ; employed,  $t = 2.8$  (189),  $p < 0.05$ ). During peak season, the self-employed earned on average KES 24,176 a month, while the self-employed earned KES 10,452. In low season incomes dropped to KES 15,194 and KES 9,874, as presented in table 51. In Turkana, both the waged and self-employed are vulnerable to shocks and need to support to develop risk management plans.

Counties	Type of employment	Seasons	Incomes from employee	From other sources	Total income
Samburu	<b>Self-employed (N = 130)</b>	High Peak	16,751	4,153	17,032
		Low peak	8,401	4,153	10,285
	<b>Waged employments (N = 81)</b>	High peak	4,795	4,038	6,105
		Low peak	4,463	4,038	5,974
Turkana	<b>Self-employed (N = 340)</b>	High peak	25,448	5,622	24,176
		Low peak	13,530	5,622	15,194
	<b>Waged employments (N = 196)</b>	High peak	9,736	6,913	10,452
		Low peak	6,661	6,913	9,874

**Table 51: Seasonal household income**

### Number of dependents and nutrition

On average, household heads in both counties had eight dependents (Samburu = 6, Turkana = 8). The results found an insignificant negative linear relationship ( $p > 0.05$ ) between the number of

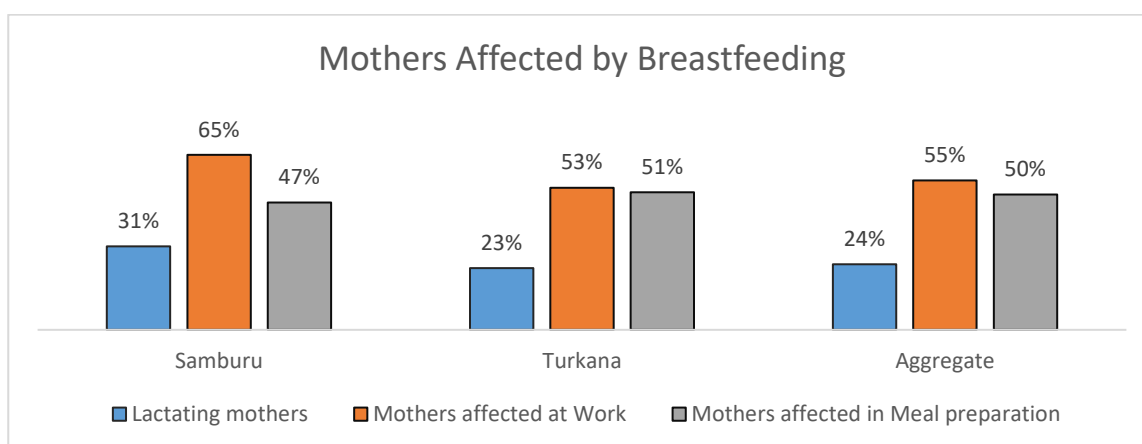
dependents and number of meals, as well as the HDDS. As such, the more dependents a household had, the fewer meals it had per day and the less diverse their diet.

Number of dependents	Aggregate			Samburu			Turkana		
	N	Meals/day	HDDS	N	Meals/day	HDDS	N	Meals/day	HDDS
None	12	2.3	2.8	6	2.2	3.7	6	2.3	2.0
1 - 5	235	2.5	2.8	82	2.8	4.0	153	2.3	2.2
6 - 10	319	2.3	2.5	61	2.8	4.1	258	2.2	2.2
11 - 15	105	2.2	2.7	11	2.6	3.7	94	2.2	2.6
16 - 20	14	2.3	2.1				14	2.3	2.1
Total	685	2.4	2.7	160	2.8	4.0	525	2.2	2.2

**Table 56: Dependents and nutrition**

### Nursing mothers and nutrition

Results reveal that 24% (Samburu =31%, Turkana = 23%) of female respondents were lactating mothers. The results also reveal that 55% (Samburu = 65%, Turkana = 53%) of these mothers said nursing affected their ability to work. Half (Samburu = 47%, Turkana = 51%) indicated that nursing affected their ability to prepare nutritious food for their families. These findings are presented in figure 35.



**Fig 35: Proportion of mothers affected on the ability to work and prepare nutritious meals while nursing**

## Effects of breastfeeding

Nearly three-fourths of breastfeeding mothers said breastfeeding reduced the time they spent at work, while 21% indicated that they stopped going to work. Some 71% said breastfeeding left them with inadequate time to prepare meals, 38% could not afford nutritious food, and 18% found it hard to travel to markets to buy food.


Effects of breastfeeding at work							
	Samburu		Turkana		Aggregate		
	Employed	Self Employed	Employed	Self Employed	Employed	Self Employed	Total
<b>Stopped working completely</b>	0%	14%	100%	19%	33%	18%	21%
<b>Minimized working time</b>	100%	86%	0%	74%	67%	76%	74%
<b>Sleep for few hours</b>	0%	29%	0%	4%	0%	9%	7%
Effects of breastfeeding on food preparation							
	Samburu		Turkana		Aggregate		
	Employed	Self Employed	Employed	Self Employed	Employed	Self Employed	Total
<b>Inadequate time for meal preparation</b>	50%	80%	100%	69%	67%	71%	71%
<b>Inadequate money to buy nutritious food</b>	50%	60%	0%	35%	33%	39%	38%

<b>Unable to travel long distances to purchase nutritious foods</b>	0%	40%	0%	12%	0%	16%	18%
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**Table 56a: Effects of Breastfeeding**

Nursing mothers earned an average monthly income of KES 11,439 (Samburu = KES 13,903, Turkana = KES 10,515) which was significantly lower ( $t = 6.4$  (205),  $p = 0.012$ ) than the KES 23,079 (Samburu = KES 23,538, Turkana = KES 22,976) earned by mothers who were not nursing. The results also reveal that the nursing mothers had an insignificantly ( $p > 0.05$ ) higher HDDS of 2.6 compared to the non-nursing mothers (2.5) despite earning a lower income to sustain a nutritious diet, as presented in table 56b.

Type of Employment	Indicator	Statistic	SAMBURU		TURKANA		Aggregate	
			Non Nursing mothers	Nursing Mothers	Non Nursing mothers	Nursing Mothers	Non Nursing mothers	Nursing Mothers
Employed	HDDS	N	5	2	11	3	16	5
		Mean	3.6	3.5	3.1	1.0	3.3	2.0
	Income (KES)	N	3	2	10	3	13	5
		Mean	26,122	2,963	11,958	4,689	15,227	3,999
Self Employed	HDDS	N	29	13	141	50	170	63
		Mean	4.5	4.5	2.3	2.2	2.7	2.7
	Income (KES)	N	24	12	109	36	133	48
		Mean	23,886	15,496	24,503	11,210	24,391	12,281
Total	HDDS	N	38	17	200	59	238	76
		Mean	4.3	4.2	2.2	2.2	2.5	2.6
	Income (KES)	N	28	15	124	40	152	55
		Mean	23,538	13,903	22,976	10,515	23,079	11,439



**Table 56b: A comparison of Nutritional indicators between nursing and non-nursing mothers.**

**Coping strategies for household that can't buy enough nutritious food**

Households that couldn't afford nutritious diets adopted coping strategies that varied across the counties and livelihood zones, as presented in Annex 9. In Samburu, agro-pastoralists would sell assets (90%) and take casual work (70%). About 70% of households reduced the quantity of their meals, while 60% resorted low-quality meals. In the pastoral zone, households also sold assets (47%) and engaged in casual work (40%). In towns, people found casual work (59%) and reduced the quality of meals (50%).

In Turkana's towns, 57% of households engaged in casual work as a coping mechanism. In pastoral zones, the major mechanisms were casual work (37%) and charcoal burning (22%). Fisher folk households also engaged in casual work (54%) as did half of agro-pastoralists. Agro-pastoralist households also ate less (39%) in a meal but bought more nutritious food.

## 4. CONCLUSIONS, RECOMMENDATIONS AND WAY FORWARD

### LABOR MARKET INTERVENTIONS

The most promising sectors for job creation are construction (Turkana and Samburu), livestock (Turkana and Samburu), transport (Turkana and Samburu), agro-pastoralist crops (Turkana and Samburu); fisheries (Turkana); basketry (Turkana); bead making (Samburu); and tourism (Samburu). Other potential enterprises include beekeeping and poultry farming. Each of the industries that relies on the natural environment, however, whether it is agriculture, pastoralism or tourism, is at the mercy of climate change.

Pastoral communities and unskilled waged workers are the most vulnerable to malnutrition in both counties because of their low and inconsistent incomes derived from work. Diversity in diet for the self-employed can fluctuate based on seasonal fluctuations in income.


Youth have moved to *bodaboda* riding and unskilled labor at construction sites, while men do not seem to have a clear economic activity. Women depend heavily on charcoal burning, selling and fetching firewood, and small-scale retail. Interventions should support communities to find new livelihood options to anchor their economies, using existing physical and social assets. This includes gradual introduction of other systems like poultry and beekeeping.

Despite considerable concerns about the rapid migration into urban environments and the lack of infrastructure, opportunity and services available to meet growing demand, there is greater opportunity for employment in towns, including Maralal and Lodwar. The high proportion of refugee populations in Kakuma means that the host community in that area is finding competition for small numbers of opportunities.

Lake Turkana has raw materials for basketry, offering a pathway for women to take up that trade. Interventions should improve their skills and addressing systemic issues that inhibit growth in fisheries.

Samburu's agro-pastoralist zone has relatively more options anchored by livestock, crop farming, and the growing population nearby Maralal. Interventions should promote the concept of farming as a business, and support farms with effective services and input supply systems, while also addressing systemic constraints. In livestock, interventions should stimulate new production systems, with training to use them. This will lead to more vibrant crop and livestock value chains, sustainably creating more jobs.

Agro-pastoralist zone of Turkana features two trends. In the first, communities within irrigation schemes are anchored by farming, as in Samburu's agro-pastoralist zone, requiring similar interventions. In the second, communities outside of irrigation schemes do not have a strong economic anchor, requiring interventions similar to the pastoral zones.



Childcare access remains one of the greatest obstacles to women entering the paid workforce. Identifying opportunities to develop innovative childcare models would not only provide women with a quality and affordable option for early childhood development but could also provide jobs to women in those communities.

## **SKILLS DEVELOPMENT**

Culture heavily influences gender differences in skills and employment. Historically poor access to formal education has meant that the two counties have some of the lowest literacy and numeracy rates in the country. While literacy and numeracy has improved among younger generations, acquisition of language beyond vernacular remains poor. Skills development programs must take this into consideration, and tailor their offerings appropriately. For residents of communities in the two counties to be able to export their acquired skills to the rest of the country, additional support for language acquisition – either Kiswahili or English – should be incorporated in all training programs.

Many people struggle to pay school fees. Skills provision must take financial realities into account, whether through revolving funds (like the Latia model) or through the involvement of private firms in skills development.

Many people fear investing the little money they have in training that does not guarantee a job. People seeking skills weigh the cost of formal training against informal training in the community, which is considered free. Training programs help graduates engage in self-employment. A VSLA for trainees could allow them to draw some money to start up their businesses. A revolving fund would meet the same purpose, with beneficiaries repaying as they start earning incomes from their ventures.



## ACCESS TO BDS AND OTHER SUPPORT SERVICES

MSMEs need help in accessing finance in order to access markets.

Since most MSMEs are informal, the starting point is to strengthen savings and loan schemes currently offered by business organizations and small business groups. The aim is to build social capital, develop a saving culture, and grow equity that they could later use to access financing from government affirmative funds and SACCOs.

To access markets, producers (beads, basketry, honey, crops) need support to organize themselves to aggregate effectively. For crops, the project should help develop aggregators who buy from the community and supply to other markets.

The target group has no access to established BDS providers. USAID Nawiri must pilot a sustainable BDS delivery model to serve their SMEs and businesses.

Business associations mainly operate at the sector/trade level, within each county. They need training in financial management, leadership, business skills, and in creating business plans, so they can run the associations as businesses. Strengthened associations, across sectors could:










- Form partnerships to provide trainings by government, NGOs and private sector
- Facilitate compliance, quality control and ensuring ethical businesses
- Support security management, conflict resolution, peace keeping
- Maintain infrastructure (beaches, livestock markets, irrigation, market etc.)
- Provide an enabling environment for other actors to participate in their businesses, which will translate into vibrant businesses for their members
- Link to inputs and output markets
- Lobby for favorable business environment







## VALIDATION

The findings of this study were presented to stakeholders for validation and thereafter used to co design interventions for USAID Nawiri program (Annex 11). Steps involved validation of the findings and recommendations by stakeholders. In the first step, stakeholders are asked to validate and add their inputs to the findings. In the second step, stakeholders and market systems actors co-created interventions, which USAID Nawiri could implement.



## ANNEXES

Annex No	Attachment	Annex Name
Annex 1	 Microsoft Word 97 - 2003 Document	Description of Livelihood Zones in Turkana and Samburu Counties
Annex 2	 Microsoft Word 97 - 2003 Document	Main economic Activities anchoring each livelihood Zone
Annex 3	 Microsoft Word 97 - 2003 Document	Asset Ownership according to Livelihood zone
Annex 4	 Microsoft Word 97 - 2003 Document	Skills possessed by Target Groups in Different Sectors
Annex 5	 Microsoft Word 97 - 2003 Document	Average Number of Dependents per HH of Target Group
Annex 6	 Microsoft Word 97 - 2003 Document	List of Tertiary Institutions in Turkana
Annex 7	 Microsoft Word 97 - 2003 Document	List of Private Institutions and Programs in Kakuma
Annex 8	 Microsoft Word 97 - 2003 Document	Average Incomes per Livelihood Zones
Annex 9	 Microsoft Word 97 - 2003 Document	Strategies used by HH to cope with Inadequate incomes for Purchasing Nutritious food

Annex 10	 <p>Microsoft Word 97 - 2003 Document</p>	Terms of Reference
Annex 11	 <p>Microsoft Word 97 - 2003 Document</p>	<b>Updated Sector Analysis</b>
Annex 12	 <p>Microsoft Word 97 - 2003 Document</p>	<b>Notes from Validatio and Co-Desin Workshops</b>
Annex 13	 <p>Microsoft Word 97 - 2003 Document</p>	<b>Updated Conclousns and Recommendations</b>
Annex 14	 <p>Microsoft Word 97 - 2003 Document</p>	<b>Sector Summaries</b>
Annex 15	 <p>Microsoft Word 97 - 2003 Document</p>	<b>Challenges of Marketing Based on Marketing Channels</b>

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