



**REPUBLIC OF KENYA**



## **MASTER PLAN FOR SCARCE AND HIGH PRIORITY SKILLS IN THE PUBLIC SERVICE**

**Developed by:**

**Ministry of Public Service and Gender, State  
Department for Public Service in collaboration  
with the Council of Governors and the Kenya  
School of Government**

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## PREFACE

Identifying the skills needed is a first step towards developing a fit-for-purpose civil service for the twenty-first century. Building a civil service for the future requires a new look at the way people are managed; recognizing that public employees are neither homogenous nor mutually interchangeable. This suggests the need to develop employment policies and frameworks that are not only driven by quantitative factors (numbers and cost), but that are ultimately driven by individual qualities (skills and expertise).

Skills gap analysis is a tool used to determine what gaps exist between employees' existing skills and those skills required by an organization to reach its current and future goals. It helps organizations to establish what training or hiring requirements are needed to fill those areas where skills gaps are apparent. A skills master plan therefore, facilitates the identification of the best strategies to adopt in closing the existing skills gaps. This master plan is, therefore is tailored to enable the targeted MDCAs gain invaluable insights into their workforce in terms of skills and competencies that can be deployed appropriately to achieve their performance objectives.

The skills Master Plan will aid MDCAs at the heart of implementation of the "Big Four" agenda undertake strategic workforce planning in a work environment that is constantly evolving and enable them rethink about talent sourcing, employee development, and to realize organizational objectives for increased productivity and competitiveness.

Given that in today's public sector change is a constant, public investment in the skill sets of civil servants is required for government to become more nimble, agile and adaptable. The civil service needs to be developed to a fit-for-purpose vehicle for transformational public service delivery that is at par with the best in the world.

The Government is committed to building capacity of public servants and views investment in its workers as a well-informed investment that can boost the capacity of their civil service to deliver on its development agenda. Identifying principles that can underpin these decisions will support the government to design and implement civil service reforms that take into account capacity and capability, and balance short-term pressures with future-oriented foresight to ensure sustainability over the long term as envisioned in Vision 2030.

Professional civil services are as important as ever to respond to complex challenges and to deliver public value. However, in addition to professional expertise, civil services must also be strategic and innovative. Civil servants in a professional civil

service are qualified, impartial, values-driven and ethical. There is the need to ensure civil servants are certified professionals in their area of expertise. A civil service composed of qualified professionals will not automatically address today's challenges. Professional civil servants will also need to be future-oriented and evidence-based. This requires the acquisition of strategic skills, particularly at management and leadership levels, to encourage collaboration in line with the Public Service Competency Framework.

**Prof. Margaret Kobia, PhD, CBS**  
CABINET SECRETARY  
MINISTRY OF PUBLIC SERVICE AND GENDER

## FOREWORD

I am pleased to release the Master Plan for rare and high priority skills as a strategy for filling skills gaps in public sector agencies. Human Resource Development is an important enabler for the attainment of Kenya Vision 2030, the national government's "Big Four" agenda and the country's sustainable development in terms of the people themselves and the variety of skills acquired. This includes their capacities and capabilities, education, creativity and innovativeness, and capacity for service delivery. A skilled, efficient, competitive and adaptive human resource is critical for sustainable development.

The Government is putting in place critical interventions towards improving human resource capacities through training and development. This includes sustainable investment in skills development; capacity development of quality human resources; higher investment in science, technology and technical-oriented subjects; ensuring a strong link between education and the labour market through re-engineering technical and higher education.

Conducting an analysis of skills base within the workforce has, therefore, become necessary for understanding skills related factors affecting productivity and service delivery in the public service. Effective human resource planning and development requires that accurate and up to date data on the workforce is maintained. The development of a reliable and adequate database on skills within the public service workforce is hence a key factor towards achievement of Vision 2030.

Today's civil servants are addressing problems of unprecedented complexity in societies that are more pluralistic and demanding than ever. At the same time, the systems and tools of governance are increasingly digital, open and networked. Civil servants need the right skills to keep pace. This presents a double challenge of identifying which skills will be needed for a civil service which is fit-for-purpose today and into the future and to figure out how civil services can invest in these skills – through attraction, recruitment and development to improve policies and services.

This Master plan addresses both sides of this challenge by proposing interventions that may be put in place. The paper identifies promising trends and innovations in public service management that can help set the right strategy to improve employment policies, sourcing and deployment of acquired skills for the Public Service to acquire human resources with the correct skills set, in right quantities and ensures they are deployed appropriately.

**DR. JOSEPH KINYUA, EGH**

CHIEF OF STAFF AND HEAD OF PUBLIC SERVICE



## **STATEMENT BY CHAIRPERSON OF THE HUMAN RESOURCE AND LABOUR COMMITTEE, COUNCIL OF GOVERNORS**

The National and County Government Coordinating Summit during its inaugural meeting held on 19th June, 2013 resolved to undertake a joint Capacity Assessment and Rationalization of the Public Service (CARPS) Programme.

The overall objective of CARPS was to ensure that Government functions are properly structured and staffed to facilitate transformation of the Public Service for efficient and effective service delivery at both levels of Government. This is in response to the need for implementation of devolved governance system that also necessitated the alignment of National and County Government Structures.

Over the years, the Public Service has not developed a skills master plan to guide the development of human resource in the public service in line with the national development needs, especially in the scarce and high priority skill areas. As a result, acquisition and development of skills and competencies has not adequately responded to the skills needs of Public Service. This was particularly brought out through the Capacity Assessment and Rationalization Programme (CARPS) report, 2016 which revealed that the public service workforce was experiencing shortage of technical and professional skills in critical and priority areas such as Medical, Legal, Research, Scientists, Engineers, Mining personnel; controlled employment.

I, therefore, welcome the development of the Master plan for Scarce and High Priority Skills for the Public Service to inform future interventions in addressing biting skills gaps in critical service delivery sectors. The Master plan among other issues recommends the adoption of key strategies in public administration and management to ensure the aspirations of a highly skilled quality human resource base in the public service under Kenya Vision 2030 are realized.

The skills master plan, in effect, strengthens the Public Service transformation strategies for creating an efficient and effective public service with moral and ethical values and ethical standards, and a highly motivated human resource capacity for efficient public service delivery.

**Hon. James Ongwae, CBS**  
**GOVERNOR, KISII COUNTY GOVERNMENT**

## ACKNOWLEDGEMENT

The Strategy for Closing Skills Gaps in the public service in the “Big Four” lead agencies in both national and county government is the fruit of the labour of many players in the public service with a commitment to address skills gaps in the key sectors of the Public Service.

I wish to thank the Cabinet Secretary, Ministry of Public Service and Gender, Prof. Margaret Kobia, MGH, PhD for spearheading and providing leadership in the development of the Master plan for Scarce and High Priority Skills in the Public Service

I am grateful to the Chief of Staff and Head of the Public Service, Dr. Joseph K. Kinyua, EGH, for the goodwill and support accorded in the process of developing this strategy.

Further, I wish to appreciate the Council of Governors and the Kenya School of Government for their continued support and collaboration in improving service delivery in public services.

I acknowledge the efforts and commitment of the technical team which was involved in the development of the master plan, heads of department and other staff of the Ministry of Public Service and Gender, with special mention of the Human Resource Development Division, State Department for Public Service for developing this Strategy document.

Mary Kimonye, (Mrs), MBS

**PRINCIPAL SECRETARY**

**STATE DEPARTMENT FOR PUBLIC SERVICE**

## CHAPTER ONE: BACKGROUND

### 1.0 Introduction

Kenya's development blue-print, Vision 2030, launched in 2007, clearly spells out that the country aims at creating a globally competitive and adaptive human resource base to meet the requirements of the Vision. The government recognizes that the country's main potential lies in her people – their creativity, work ethic, education their entrepreneurial and other skills. To ensure significant and consistent results, the human resources will be managed, rewarded and steered to develop global competitiveness.

The Kenyan Vision for public service is "a citizen-focused and results-oriented" institution serving a rapidly growing economy and society and recognizes that a modern and results-focused public service is a prerequisite for the socio-economic transformation. An effective and efficient public service will ensure that the Government provides an environment that is suitable for the private sector to thrive and thus take the lead in economic development.

The Vision has prioritized human resource development to drive the envisaged socio-economic transformation. Consequently, the Public Service will require to pay a sedulous attention to human resource planning to ensure the public service has the requisite skills and competencies to deliver on the Vision.

The National and County Governments established the Capacity Assessment and Rationalization of the Public Service (CARPS) Programme in 2014 as a Joint Initiative. The overall objective of the exercise was to ensure that Government functions are properly structured and staffed to facilitate transformation of the Public Service for efficient and effective service delivery at both levels of Government. This is in response to the need for implementation of devolved governance system that also necessitated the alignment of National and County Government Structures.

The findings of the study revealed, among others, that the public service workforce experienced shortage of technical and professional skills in critical areas.

Some of the fields that were identified as priority areas lacking skills were in *Health sector personnel* - Doctors, nurses, clinical officers, medical laboratory technologists/technicians; *Engineers* – Civil , Structural, Electrical, Mechanical, Water, Agricultural; and *other job families* – Architects, information Communications Technology (ICT) Specialists, Geologists and Miners, Physical Planners, Weights and Measures specialists, Environmentalists, Meteorologists, Accountants, Economists, Research and Development Personnel, Legal Service Personnel, and Agricultural sector personnel.

To address the challenges highlighted in the findings, CARPS study made a number of recommendations among the development of a Competency Framework and a

National Skills Master Plan High Priority and Scarce Skills which were approved by the National and County Government Coordinating Summit in February, 2016.

The development of a skills master plan is, therefore, fundamental in aligning and harmonizing demand and supply of skills necessary for the labour market. The plan will help to: strengthen relationship between skills gap, training required, unemployment and the education system; embed targeted capacity building initiatives for responding to the skills needs of the Public Service; develop key management competencies, knowledge and skills in targeted government departments; and collaborate with training institutions to respond to the skills needs.

### 1.1 Rationale

The development of the national Master Plan for Scarce and High Priority Skills was one of the priority recommendations of the CARPS study which was approved for implementation by the National and County Co-ordinating Summit in 2016. This was seen as a prerequisite for the realization of the national development priorities outlined in Kenya Vision 2030, Medium Term Plans (MTPs) and County Integrated Development Plans.

A skills Master Plan will provide a cohesive and coordinated approach to the development of the required skills and competencies. Further, it will provide clear guidance to the government budget process and lead to a decision to pay appropriate attention to the various categories of skills areas. It will also guide government policy on recruitment and training. Government, at both national and county levels, can use the plan to embark on systematic and coordinated planning, budgeting and implementation of the National Master Plan for sustained supply, procurement and retention of scarce and high priority skills.

### 1.2 Problem Statement

The Kenya Vision 2030 envisions a middle income and industrialized nation by 2030. It further outlines that for this to be attained Human Resource Development will play a key role. In this regard, strategic human resource development will need to be guided by a Skills Master plan that reflects and prioritizes scarce skills and competences necessary for social-economic growth of the country.

Over the years, Kenya has not developed a skills master plan to guide the development of human resource in the public service in line with the national development needs, especially in the scarce and high priority skill areas. As a result, acquisition and development of skills and competencies has not adequately responded to the skills needs of public service. This was particularly brought out through the Capacity Assessment and Rationalization Programme (CARPS) report, 2016 which revealed that the public service workforce was experiencing shortage of

technical and professional skills in critical areas, especially those targeted in the "Big Four" Agenda.

Development of a skills master plan is, therefore, necessary to guide the development of human resource especially in the scarce and high priority skill areas in the public service.

## 1.2 Objective

The objective of the study is to develop a skills master plan for Scarce and High Priority Skills in line with national development priorities.

## 1.3 Scope

The study covers the national government ministries and state departments spearheading the implementation of the "Big Four" agenda as well as the 47 county governments, with particular focus on the scarce and high priority skills in the medium term and long term. These areas include health, food security, housing and manufacturing.

## 1.4 Terms of Reference

The Terms of Reference (TOR) cover the scope of work within Phase 1 was to:

- a) Prepare a work plan and an Inception Report (including methodologies, and instruments and plan for data collection);
- b) Collect data, analyse and compile notes of key skills gaps, issues and options;
- c) Prepare comprehensive Medium Term plan interventions (including implementation strategy and financial requirements disaggregated by levels of Government and target sectors, and by categorizing the skills requirements for each).
- d) Prepare policy paper on closing skills gaps in the implementation of the national development priorities; and
- e) Any other matter incidental thereto.

## 1.5 Interpretation of Terms of Reference (ToRs)

The team interpreted the ToRs as follows:

- a) Prepare an inception report restating our understanding of the ToRs
- b) Collect data, analyse and compile notes of key skills gaps, issues and options;
- c) Determine comprehensive interventions/strategies to address the identified skills gaps
- d) Prepare a Skills Master Plan for Scarce and High Priority Skills in the national priority areas.
- e) Prepare policy paper on closing skills gaps in the public service in the national priority areas.

## 1.6 Expected Deliverables

- a. Inception report

## b. Master Plan for Scarce and High Priority Skills

### 1.7 Methodology

The following activities were taken into consideration:

- i. Formation of a taskforce with members drawn from lead agencies in high priority areas to spearhead the development of the skills master plan.
- ii. Analysis of Kenya's Economic Blue Print and other policy documents that include Kenya Vision 2030, MTP III, Ministries' Strategic Plans (2018-2022), County Integrated development Plans (2018-2022). This aimed at establishing: the supply of priority skills versus demand across government agencies; levels of specialization and the adequacy of distribution of staff; and skill demanded by emerging important sectors in the economy such as blue economy, value chain addition, ICT, green energy, mining, among others.
- iii. Analysis of scarce and high priority skills highlighted in the CARPS report, 2016 Ministries' Strategic Plans (2018-2022), County Integrated development Plans (2018-2022).
- iv. Scanning of literature related to skills development for comparative analysis.
- v. Review of the legislative and institutional arrangements for skills development in the country.
- vi. Consultative forums with key stakeholders for input and validation. These included representatives from relevant MDACs.

### 1.8 Significance of the Study

This study signifies a very important mark in the public service as the Government considers this an important milestone that is worth undertaking. Focus on skills development has become topical issue in public service sectors in growing economies. A focus on skills development is also important in growing the economy so that it can be possible to absorb an increasing number of the unemployed members of the population. A skills development plan sets a country on a growth trajectory.

### 1.9 Limitations of the study

Development of a skills master plan is a capital intensive exercise that requires participation of key stakeholders at all stages of development. However, owing to austerity measures, the development of the master plan for scarce and high priority skills relied on review of secondary data from various sources from both national and county government. Further, the emergence of the COVID-19 pandemic limited the level of engagement with key stakeholders.

### 1.10 Structure of the Report

The report is organized in six chapters:

Chapter 1: Background Information

Chapter 2: Situational Analysis

Chapter 3: Skills Needs Analysis

Chapter 4: Strategic Interventions

Chapter 5: Observations, Conclusion and Way forward

## **CHAPTER TWO: SITUATIONAL ANALYSIS**

### **2.0 Preamble**

This chapter relates to current state of Kenyan labor market, supply of skilled manpower, outturns from training institutions, the qualification frameworks, occupational classifications within the economy and the demand for various skills sets in terms of absorption in both public and private sectors. It further makes a comparison of the Kenyan labor force skills development strategies as well those of other economies, scrutinizing the competitiveness of the skills sets churned out of local training institutions into the Kenyan market where the Public Service, with its career management and skills/competency development strategies, competes for talent with the private sector.

### **2.1 Labour Market Outlook**

The development of a reliable and adequate database on skills within the workforce in the economy is a key factor in the achievement of Kenya Vision 2030. It is essential that accurate and up to date data on the labour market is maintained for effective human resource planning and development to be realized.

Human capital encompasses human resources and the variety of skills acquired and the capacities and capabilities of all individuals in an economy, their level of skills, education, creativity and innovativeness, health and well-being, capacity for service delivery and empowerment, availability of required skills, and effective participation in various economic activities. To this end, human resource development is a long and continuous process of increasing knowledge, skill, capacities, positive work attitudes and values of all people and it requires focusing on training and skills development, health and social welfare, among others.

The attainment of the Government “Big Four” agenda, with regard to food security, affordable housing, high level manufacturing and universal health care requires adequate supply of critical human resource with necessary skills, which calls for a strong linkage between education, training, and industry. Further, the Kenya Vision 2030 and the third Medium-Term Plan (2018-2023) have emphasized human resource development as key to national transformation. The Vision’s three pillars on economic, social and political development rely greatly on availability of a highly trained, adaptive and productive human resource base.

### **2.2 Efficiency of skilled labour market**

Countries over the world are putting in place mechanism of ensuring that they have skilled workforce that is efficient and competitive to meet their developmental needs. Skilled workers are critical human resource who are expected to hold leadership/management and technical /professional positions and are adaptive to technological changes to drive social-economic advancement of a Nation.



Most developing countries are faced with challenges of developing a skilled workforce to satisfy their human capital requirement for sustainable economic growth. While professional knowledge, soft skills and modern industrial working qualities are specific to different work occupations for productivity, the labour market in Kenya mainly comprises of general knowledge practitioners with limited/low technical executing competencies and capabilities to drive the country's economic blue print (CARPS 2016).

On this site, you can use the Index to compare the scores for each individual labour market, including a breakdown of the seven Indicators that determine it.

The Hays Global Skills Index report (2019-2020), the comprehensive overview of the professional global labour market offers insights into the challenges faced by organisations as they search for the most sought-after skilled talent. It provides insight into the employment and economic status of the 34 markets included in the report, offering insights from Hays experts across the globe. The Hays index report provides seven indicators for assessment of efficiency of skilled labor market in countries and whether employers find it easy or difficult to recruit skilled labor. These are:

- i. Education flexibility – whether education systems can adapt to meet organizations' future talent needs, particularly in the fields of mathematics, science, and literacy;
- ii. Labor market participation – measures the degree to which a country's talent pool is fully utilized;
- iii. Labor market flexibility – assesses the legal and regulatory environment faced by businesses in filling talent gaps;
- iv. Talent mismatch - measures the mismatch between skills needed by business and skills possessed by the labor force;
- v. Overall wage pressure – whether wages are keeping pace with historic trends;
- vi. Wage pressure in high-skills industries: the rate at which wages in high-skills industries outpace those in others; and
- vii. Overall wage pressure in high-skill occupations – a measure of wage premium paid in high-skills occupations, indicating shortages of key talent.

The index provides a unique perspective on the challenges and opportunities facing workers and their employers particularly taking into consideration ever changing work environment. Generally the analysis arising from the Hays index suggests that there is need for flexibility not only in education systems but also in labor market policies that allow employers to determine wages, adopt measures for short-term employment, and to attract talent.

The Hays index report points to the need for countries to have in place master plans for scarce and high priority skills for socio-economic development. It is for this reason it has been found necessary to develop a Master plan for scarce and high priority.

### 2.3 Policies and Practices for Effective Skills Development Systems

The role of government is key to strengthening the foundation of technical and vocational education and training (TVET) and skills development systems. In countries with effective skills development systems, governments consistently lead the process to establish those systems. Partnership with industry is found to be fundamental to securing relevance of training: industry must play an active role and TVET and skills development need to be aligned with workforce needs. Availability of financing from different sources—government, students and employees, and the private sector—is vital for the success of TVET and skills development systems. Matching supply and demand may not be easy, crucial attributes of successful systems are flexibility and responsiveness to the evolving needs of industry.

Key issues arising from the experiences of countries that have effective skills development systems are that they have raised the prestige of technical education. TVET is usually considered less prestigious than tertiary degrees, leading to the growing phenomenon of graduate unemployment even in developing countries. The Republic of Korea and Singapore have raised the prestige and the signaling value of technical education in the market. Singapore raised the quality of the Institute of Technical Education to world standards. Recently, the Singapore Committee on University Education Pathways has recommended adding 3,000 university places by 2020, which will be in a new “applied degree” pathway linked to real-life applications in the Singapore economy. The Republic of Korea has created “Meister schools” at the secondary level that provide work experience for students as part of the course of study, and the graduates will have the prestigious label of young master craftsman.

The Global Human Capital Index released by the World Economic Forum (2016) which used four indices to determine the scores of different countries—Capacity, Deployment, Development and Know how ranked Kenya at position 120 out of 130. This could be attributed to socio-cultural problem that consider Vocational education as inferior and designed for the less academically gifted. However the, country undertook strong reforms in the educational sector that has led to sizeable medium skilled employment sector. This led to deliberate measures to strengthen the development of vocational education by establishing a state department responsible for Technical, Vocational education Training and set aside funds for improving the infrastructure in TVET institutions. Consequently, the Global Human Capital Index released by the World Economic Forum (2017) ranked Kenya at position 78 out of 130.

## Global Competitiveness for Human Capital for Kenya

Kenya was ranked at number 95 in terms of skills competitiveness under the Global Competitive Index (GCI) as in Table 1 below:

Table 1: Health, skills, labour markets, innovation capability and GCI for select countries, 2018

	Health		Skills		Labour Market		Innovation Capability		Global Competitive Index	
	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score
Rwanda	106	60.9	123	40.9	49	62.1	118	27.3	108	50.9
Ghana	112	56	104	51.3	89	55.9	83	32.7	106	51.3
<b>Kenya</b>	<b>110</b>	<b>58.1</b>	<b>95</b>	<b>55.4</b>	<b>60</b>	<b>59.9</b>	<b>69</b>	<b>36.5</b>	<b>93</b>	<b>53.7</b>
Uganda	124	44.8	122	40.9	63	59.8	107	29.8	117	46.8
Burundi	127	42.2	134	32.9	133	44.5	131	23.8	136	37.5
Tanzania	116	51.7	120	41.5	95	54.8	119	27.2	116	47.2
South Africa	125	43.2	84	58.4	55	61	46	44.3	67	60.8

Source: World Economic Forum (2018), Global competitiveness

From the above statistics it is clear that the country has more ground to cover in development of future skills and know-how with an average score of 59.48%. The country is not sufficiently developing the right skills for the future, and for realization of the Kenya Vision 2030. Employers and educational institutions need to address the challenge of developing relevant skills to meet future demands.

The key areas of human capital development include capacity, largely determined by past investment in formal education where deployment is defined as the application and accumulation of skills through work. Development in the formal education of the next generation workforce requires continued up-skilling and re-skilling of existing work force and know-how as the breadth and depth of specialized skills-use at work.

An analysis of the Human Capital Index sub-indices for 2017 (Table 2) shows that Kenya was doing relatively well in deployment of human resources, and is ranked 25 out of 130 countries. The country was ranked position 74 in use of specialized skills at work, and benefits from the stock of know-how embodied in large medium-skilled employment sectors and comparatively strong education quality and staff training, laying the foundation for building future human capital potential.

Table 2: Human capital index (%) and ranking, 2017

	Overall Index 2017		Capacity sub-category		Deployment Sub-Index		Development Sub -Index		Knowhow Sub-Index	
	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank
Rwanda	61.06	71	47.92	112	90.06	2	55.69	93	50.57	77
Ghana	61.01	72	64.83	79	77.35	11	55.04	96	46.82	95
<b>Kenya</b>	<b>59.48</b>	<b>78</b>	<b>60.8</b>	<b>90</b>	<b>73.18</b>	<b>25</b>	<b>53.17</b>	<b>101</b>	<b>50.77</b>	<b>74</b>
Uganda	59.73	81	57.38	98	84.26	3	47.88	112	45.42	102
Burundi	55.45	102	36	121	90.21	1	47.75	114	47.84	91
Tanzania	53.58	106	48.17	108	73.07	26	48.88	110	44.21	109
South Africa	58.09	87	69.65	65	56.39	109	57.64	90	48.7	86

Source: World Economic Forum (2017; 2018), Global Human Capital Report

The current trend in the labour market is a shift towards multi-skilling and skill updating to cope with latest technological advancements and innovations.

In sub-Saharan Africa, including Kenya, skills development has proven to be incapable of responding to the changing needs of the labour market. Many of the graduates do not succeed in finding employment upon completion of training.

## **2.4 Career Management in the Civil Service**

The major components of career management include: career planning, career pathing, and career development. Public service agencies support, encourage and assist employees in career planning, pathing and development in order to develop their careers and talents, and in effect deliver services.

### **2.4.1 Career Planning, Career pathing and Career development**

Career planning includes self-assessment, analysis of employee skills, competencies, experiences, strengths and weaknesses, training, mentoring and coaching as well as performance expectations. The employer supports the employee to analyze their interests, values, goals and capabilities considering available options such as, making decisions relating to the current job and establishing personal development plan that aligns individual and organizational goals.

Career pathing, being the process through which an employee charts a course for career development in a particular organization, enables employees to map multiple career paths scenarios, review job competencies and evaluate skill gaps. Career pathing can be vertical, horizontal or diagonal. Career paths are responsive to changes in job content, work priorities and organizational needs. Career paths may include technical specialization without managerial/supervisory responsibilities.

Dual career pathing enables the employer retain the best professional or technical personnel, increase the morale of professional/technical employees and create avenues for highly specialized/professional staff without managerial portfolio to rise to the highest levels within career structures. Dual career paths are especially critical in cadres whose members might want to make an option between progressing between technical specialization and management line, such as medical officers.

Career development provides opportunities for growth and enhanced skills, which opens up the possibilities for progression. It involves an individual taking responsibility for developing and progressing in their careers with support from the organization. It, therefore, focuses more on the means by which individuals achieve their career goals.

### **2.4.2 Competency Requirements for Career Progression**

The Master grading structure for the Civil Service starts from Civil Service Grade CSG 1 (the highest grade) to PSG 17 (the lowest grade). The above grading structure provides for five (5) job classifications. The grading structures provide a logically designed framework within which an organization can determine where jobs should be placed in a hierarchy, defined pay levels and the scope for career and pay

progression. For officers to progress from one classification to another, they must possess the competencies required for progression to that classification.

The overall objective of the Competency Framework is to provide oversight bodies and MDACs with the framework for identification of requisite competencies at various levels in the grading structure. The Competency Framework will act as a foundation for recruitment and selection, among other HR functions, to provide a means of consistently identifying and assessing suitability of individuals at all stages of the employment cycle.

Progression in the grading structure forms part of career progression and is based on increased competencies and changes in job content. The Public Service Competency Framework provides details of competencies required for one to progress within job classifications as in Table 3 below:

**Table 3: Competency Requirements for career progression**

No	Level of Job/Function	Current Job Group	Civil Service Grade	Generic Job Title	Competency Type	
1.	Top Management	V	1	Head of Public Service	Leadership Competencies	
		U	2	Principal Secretary		
		U	3	Director General (DG)/ Principal Administrative Secretary (PAS)		
		T	4	Secretary(Technical Role)		
	S	5	Director			
For Progression to Job Group 'S' Leadership Competencies will be required						
2.	Senior management and high level specialists	R	6	Deputy Director	Managerial Competencies & Technical Competencies	
		Q				
		P	7	Assistant Director		
	For Progression to Job Group 'P' Competencies to be possessed include SMC, SLDP and related skills training as required by the Scheme Administrator and Professional Body					
3.	Middle management and middle level specialists	N	8	Principal Officer	Technical Competencies Managerial Competencies	
		M				
	For Progression following recruitment at Graduate level a written Competency Test will be administered; and professional qualifications required					
	Junior management and high level skilled officers	L	9	Senior Officer		
		K	10	Officer I		
		J	11	Officer II		
	For Progression to job Group 'J' the following Competency Tests are administered: I. Proficiency Tests, II. Suitability Tests for re-designation III. Core Competency Tests IV. Aptitude Tests					
4.	Skilled/	H	12	Assistant Officer III	Technical	

No	Level of Job/Function	Current Job Group	Civil Service Grade	Generic Job Title	Competency Type
	Advanced operational Staff				Competencies
		G	13	Assistant III	Core Competencies
		F	14	Artisan II	
5.	Semi-skilled Operational Staff	E	15	Artisan III	
	Basic Skills	D	16	Auxiliary Staff II	
	Basic Skills	A-B-C	17	Auxiliary Staff III	

*Source: A Guide to Career Management in the Civil Service, 2018*

### 2.4.3 Human Resource Planning

Human resource planning has a critical role in informing the design of an effective resourcing process of an organization. MDAs have to proactively and innovatively embrace change as part of talent retention and succession management; identify the most effective ways to achieve objectives by attracting the right number of staff, at the right time, in the right place, with the right skills, knowledge, attributes and competencies; and assist individuals realize their career plans and aspirations in order to perform their roles effectively and efficiently.

Human resource planning and succession management processes are necessary as they enable MDACs to make optimal use of its human resources, anticipate and manage surpluses and shortages of staff, and develop a multi-skilled, representative and flexible workforce, which will enable the organization to adapt rapidly to a changing operational environment.

MDACs are expected to identify the current capability and skills of their employees as well as gaps between current and future skill requirements. Once the Human Resource plan is created, it is used as a basis to provide feedback to the workforce requirements.

Currently, MDACs lack explicit Human resource plans. They submit authorized staff establishment to the public service commission to inform on recruitment and selection without the corresponding human resource plans to inform on skills gaps required to address human capital needs.

### 2.4.4 Recruitment, Selection and Promotion

Recruitment is based on existing vacancies in the organization. Entry level recruitment is based on the prescribed career progression guidelines. At the moment, entry level for different cadres is determined by the level of training in tertiary institutions as shown in Table 4 and Table 5 below:

**Table 4: Generic Designations and Entry Grades**

Job Group	Civil Service Grade (CSG)	Generic Designation				
V	1	<b>Degree Cadres</b>				
		Head of Public Service				
U1	2	Principal Secretary				
U2	3	Director General (DG) /Principal Administrative Secretary (PAS)				
T	4	Secretary (Technical)				
S	5	Director				
Q/R	6	Deputy Director	<b>Diploma Cadres</b>			
P	7	Assistant Director	Senior Principal Assistant Officer <sup>1</sup>			
M/N	8	Principal Officer	Principal Assistant Officer	<b>Certificate Cadres</b>		
L	9	Senior Officer	Senior Assistant Officer	Principal Assistant		
K	10	Officer[1]	Assistant Officer[1]	Senior Assistant	<b>Artisan Cadres</b>	
J	11	Officer[2]	Assistant Officer[2]	Assistant[1]	Senior Charge Hand	
H	12		Assistant Officer[3]	Assistant[2]	Charge Hand	
G	13			Assistant[3]	Artisan[1]	<b>Auxiliary Staff</b>
F	14				Artisan[2]	Senior Auxiliary Staff
E	15				Artisan[3]	Auxiliary Staff[1]
D	16					Auxiliary Staff[2]
A/B/C	17					Auxiliary Staff [3]

Source: A Guide to Career Management in the Civil Service, 2018

<sup>1</sup> The Grade is restricted to highly specialised diploma cadres

Table 5: Civil Service Entry Points

Level of training	Number of Years of training	Entry (CSG)	Grade	Equivalent Job Group
<b>Auxiliary/Support Staff</b>	N/A	17		A/B/C
<b>Artisans</b>	Trade Test level	15		E
<b>Certificate (Other than School certificate)</b>	Lasting 1 year and above	13		G
<b>Diploma</b>	Lasting 2 years and above	12		H
<b>Bachelors' Degree</b>	4 years	11		J
	4 years and Internship	10		K
	5 years and above	9		L
	5 years and above with one year Internship	8		M

Source: A Guide to Career Management in the Civil Service, 2018

Over the years, Recruitment and selection in the public service based on existing vacancies as opposed to skills master plans has not addressed skills and competencies gaps in high priority areas.

#### 2.4.4 Training and Development

Training and acquisition of skills, competencies and knowledge involves the integrated use of coaching, mentoring, instructing and putting in place career management strategies to improve individual, group and organizational effectiveness.

Training and development has a dual objective of growth of the employee and that of the organization, and focuses on providing employees with knowledge, skills, competencies and positive attitudes for effectiveness in their current and future responsibilities.

The Human Resource Development Policy for the Public Service (2015) provides guidelines on training and development in the public service while the Competency Framework for the Public Service guides on the requisite competencies that an employee needs in order to perform a job task within a job classification.

The civil service Career progression guidelines also provide the relevant training and development needs required by employees to acquire skills and competencies as well as the right attitude for their jobs and enable them advance in their career. Training in the Public service for a long time has been supply driven as opposed to demand driven leading to skills gaps in critical and high priority areas required for national development. This is exacerbated by the absence of skills master plans, comprehensive needs analysis and skills audit on which to anchor skills development.

#### 2.4.5 Talent Management

MDCAs are obliged to undertake Training Needs Assessments (TNA) and identify officers with special talents and assist them fit in suitable career paths. Talent management is critical in ensuring utilization of competences. It is a way of



identifying, recruiting, retaining and developing persons with the right aptitude and abilities for the job. Strategic talent management, therefore, enables Public Service to build a high performing workforce. MDCAs however, lack structured system of attracting, retaining and developing people with the right aptitude and capabilities to meet current and future needs of the Public Service.

#### **2.4.6 Knowledge Management**

Proper knowledge Management (KM) is a process of creating, sharing and using the information for the benefit of the organization. In cases where skills, competences and knowledge have been acquired, there are no adequate systems and mechanisms to harness, share and apply such knowledge in the Public Service. As a result, the existing knowledge has not been utilized to inform socio-economic development and development of a skills master plan. In this regard, efforts are being made to lay in place KM systems and to inculcate a knowledge sharing culture with the first step being the formulation of a KM framework at the two levels of government. This will ultimately contribute to the development of a comprehensive skills master plan.

#### **2.4.7 Performance Management**

The Performance Management System forms the basis for managing employee's performance and career development towards achieving organizational objectives in the public service. Through a performance-feedback process, employees are able to create, in conjunction with their supervisors, an individual development and career plan. The plan should reflect on what competencies will be developed, the rationale for why it is important to develop these areas and a list of activities that will be undertaken to achieve the goals.

To a large extent, progression to higher levels in the career path is based on performance, and meeting requirements as stipulated in the career progression guidelines. Performance management ensures that available skills and competences in an organization are applied to efficiently and effectively achieve set targets, goals and strategic objectives. However, the implementation of the performance systems by the MDACs has not been holistic in the identification of performance gaps and attendant skills development.

#### **Kenya National Qualifications Framework**

A National Qualifications Framework is an important ingredient determinant element in the development of a skills master plan. It is an instrument for development, classification and recognition of skills knowledge and competences along a continuum of agreed levels. It is based on the premise of the need to standardize and harmonize the country's qualifications by putting in place a system for setting standards defining expected knowledge, skills and understanding needed for labour

market employment, self-employment or further education within Kenya education and training system and beyond the country borders.

Qualification systems includes all aspects of a country's activity that results in the recognition of learning. These systems includes the means of development and operationalizing national and regional policy on qualifications, institutional arrangements quality assurance processes, assessment and awarding process, skills recognition and other mechanisms that link education and training to the labour market.

The Kenya National Qualifications Framework (KNQF) has 10-levels of qualifications. Sub-frameworks developed within the KNQF have the basis of academic and vocational training which are meant to realize theoretical knowledge, competences, and skills to provide for progression within the framework as shown in **Error! Reference source not found.** below:

Figure 1: Kenya National Qualification Structure

KNQF Level	General and Further Education and Training Sub-Framework				Notional Hours (Minimum)
10	Doctorate Degree				3600 after KNQ level 9
9	Master’s Degree				2400 after KNQA level 7
8	Post-graduate	Professional Bachelor’s Degree		Professional Master Craft Person	1200 after KNQA level 7 or 6000 after KNQA level 2
7	Bachelor’s Degree			Master Crafts Person –I or Management Professional	4800 after KNQA level 2 or 2400 after KNQA level 6
6		National Diploma		Master Craft Person –II or Professional Diploma	2400 after level 2 or 1200 after KNQA level 5
5		Craft Certificate National Certificate National Vocational Certificate – IV		Professional Certificate or Master Craft Person III	1200 after KNQA level 2 or 600 after level 4
4		National Vocational Certificate – III/ Artisan Certificate		National Skills Certificate-I/GTT-I	600 after KNQA level 2 or 300 after level 3
3		National Vocational Certificate - II		National Skills Certificate-II/GTT-II	300 after KNQA level 2
2		Secondary Certificate		National Vocational Certificate-1	National Skills Certificate-III/Government Trade Test III(GTT-III)

1	Primary Certificate	Basic Skills/Skills for Life	Certificate
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Source: Kenya National Qualification Authority

## 2.5 Kenya National Occupational Classification Structure

The Kenya National Occupational Classification Structure (KNOCS)-2000 defines Skill as the ability to carry out the tasks and duties of a given job. It has two dimensions:

- Skill level which is a function of the complexity and range of the tasks and duties involved; and
- Skill specialization which is defined by the field of knowledge required, the tools and machinery used, the materials worked on or with, as well as the kinds of goods and services produced.

There are five (5) KNOCS – 2000 skill levels defined based on the Kenyan education/training system:

- 1st level – Primary education;
- 2nd level – Post-primary education (except secondary and tertiary education);
- 3rd level – Secondary education;
- 4th level – Post-secondary education (excluding university); and
- 5th Level – Undergraduate or postgraduate university degree or the equivalent.

According to KNOCS – 2000, there are eleven (eleven) major occupational groups as in Table 6 below:

**Table 6: Kenya National Occupational Classification**

### KENYA NATIONAL OCCUPATIONAL CLASSIFICATION STRUCTURE

Major Groups	Sub-major groups	Minor groups	Occupational Titles	KNOCS Skill Level
1. Legislators, administrators and managers	4	7	83	-
2. Professionals	9	40	183	5 <sup>th</sup>
3. Technicians and associate professionals	9	50	178	4 <sup>th</sup>
4. Secretarial, clerical services and related workers	2	10	35	3 <sup>rd</sup>
5. Service workers & shop & market sales workers	4	11	26	3 <sup>rd</sup>
6. Skilled farm, fishery, wildlife & related workers	5	7	28	2 <sup>nd</sup> & 3 <sup>rd</sup>
7. Craft and related trades workers	8	34	206	2 <sup>nd</sup> & 4 <sup>th</sup>
8. Plant & machine operators & assemblers	9	51	412	2 <sup>nd</sup> & 3 <sup>rd</sup>
9. Elementary occupations	3	14	40	1 <sup>st</sup>
10. Armed forces	1	1	1	-
<b>Totals</b>	<b>54</b>	<b>225</b>	<b>1192</b>	-

#### Key

#### KNOCS skill level

1<sup>st</sup> – Primary

2<sup>nd</sup> – Post Primary (except secondary and tertiary education)-leading to artisan certificate

3<sup>rd</sup> – Secondary

4<sup>th</sup> – Post-secondary (excluding university)

5<sup>th</sup> – Under graduate/post graduate

Source: KNOCS-2000

## 2.6 Skills Supply-Outturns in Training Institutions

Kenya has over seventy (70) public and private Universities with several tertiary training institutions providing courses in various fields, a firm statement that the training sector has expanded rapidly over the years to meet the rising demand for a varied number of skills in the economy.

Business administration, engineering and computing programmes recorded the highest outturns in the country at higher education and training. The report further indicates that enrolment in business administration increased by 1.1 per cent and 1.3 per cent between 2014 and 2015, and 2015 and 2016, respectively. Outturns in engineering and engineering trades dropped by the same margin at 0.6 per cent from 2014 to 2015 and 2015 to 2016, respectively, while outturns in computing programme increased by 2.1 and 1.4 per cent from 2014 to 2015 and 2015 to 2016, respectively.

Business and administration programmes are more popular with females than males, while engineering and engineering trades and computing are more popular with males than females, implying that females are more inclined to study arts-related studies compared to males who are inclined to science-related studies. Males registered 14.1 per cent of total outturns compared to females at 14.9 per cent in business and administration programmes. These figures give an indication of skills and manpower supply the Kenyan labour market. Table 7 presents outturns by programme and sex for all categories of training institutions while **Error! Reference source not found.** presents the outturns by categories of institutions and **Error! Reference source not found.** presents the outturns per academic level for 2014-2016.

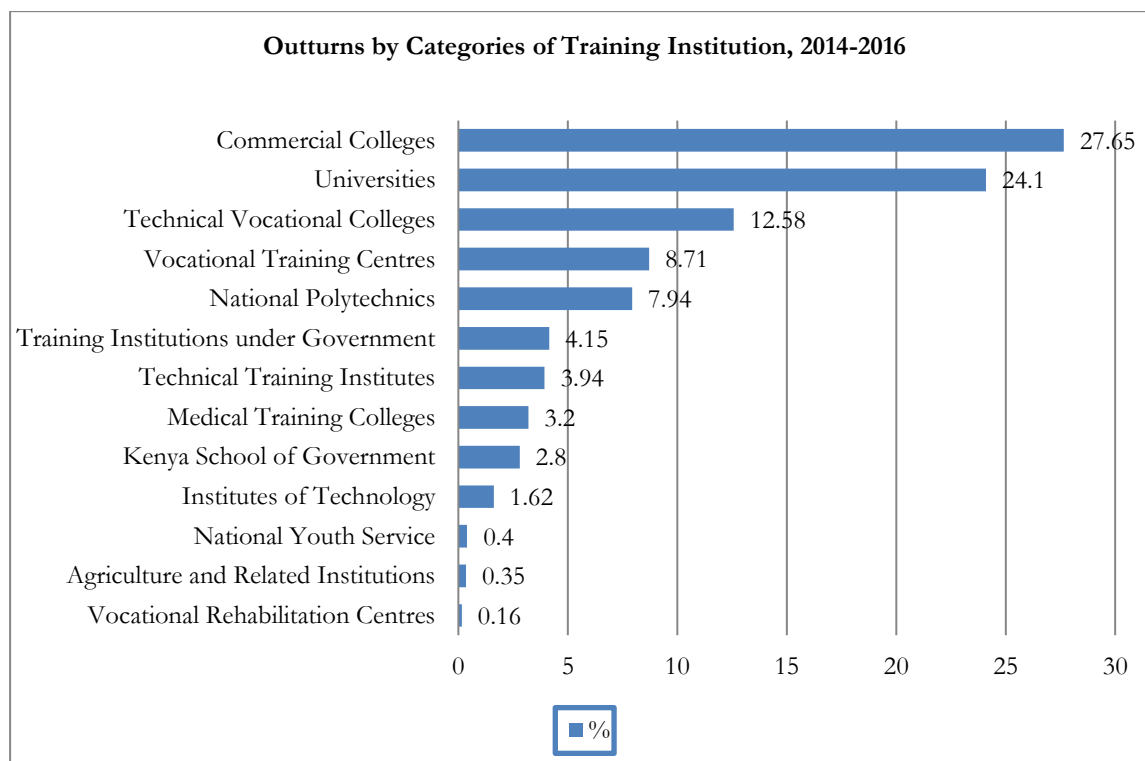
**Table 7: Total Outturns by Programme and Sex for All Categories of Training Institutions, 2014-2016**

Programme	Percentage								
	2014			2015			2016		
	M	F	Total	M	F	Total	M	F	Total
Agriculture, Forestry and Fishery	0.5	0.3	0.9	0.6	0.4	1.0	0.7	0.5	1.2
Architecture and Building	1.9	0.3	2.2	1.8	0.2	2.0	1.8	0.2	2.0
Arts	0.2	0.2	0.4	0.2	0.2	0.4	0.3	0.3	0.5
Business and Administration	13.8	13.8	27.7	13.8	14.9	28.8	14.4	15.7	30.1
Computing	5.9	5.5	11.4	6.8	6.6	13.5	7.5	7.4	14.9

Education	6.2	8.0	14.3	5.5	7.0	12.5	5.1	7.0	12.1
Engineering and Engineering Trades	10.6	3.5	14.2	10.5	3.2	13.6	10.0	2.9	13.0
Environmental Protection	0.3	0.3	0.6	0.3	0.2	0.6	0.3	0.2	0.5
Generic Programmes and Qualifications	0.1	0.0	0.1	0.1	0.0	0.1	0.2	0.0	0.2
Health	2.4	3.1	5.5	2.2	3.0	5.2	1.9	2.6	4.4
Humanities	1.7	1.4	3.2	1.7	1.7	3.4	2.1	1.9	4.0
Journalism and Information	1.3	1.4	2.7	1.0	1.2	2.2	0.9	1.1	2.0
Law	0.2	0.3	0.5	0.3	0.3	0.6	0.3	0.4	0.6
Life Sciences	0.6	0.4	1.0	0.6	0.4	1.0	0.6	0.4	1.0
Literacy and Numeracy	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Manufacturing and Processing	0.4	1.0	1.4	0.4	1.0	1.5	0.4	1.2	1.6
Mathematics and Statistics	0.3	0.2	0.4	0.5	0.2	0.7	0.4	0.2	0.6
Personal Development	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Personal Services	2.8	5.1	7.9	1.8	4.9	6.7	1.6	4.8	6.4
Physical Sciences	0.2	0.1	0.3	0.3	0.2	0.4	0.3	0.2	0.4
Security Services	0.2	0.1	0.3	0.2	0.1	0.3	0.4	0.2	0.5
Social and Behavioral Sciences	0.5	0.4	0.9	0.5	0.5	1.0	0.6	0.5	1.1
Social Services	1.3	1.9	3.2	1.4	2.2	3.6	0.8	1.3	2.1
Transport Services	0.5	0.3	0.8	0.5	0.4	0.9	0.3	0.2	0.4
Veterinary	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.1
<b>Total</b>	<b>52.1</b>	<b>47.9</b>	<b>100.0</b>	<b>51.0</b>	<b>49.0</b>	<b>100.0</b>	<b>50.9</b>	<b>49.1</b>	<b>100.0</b>

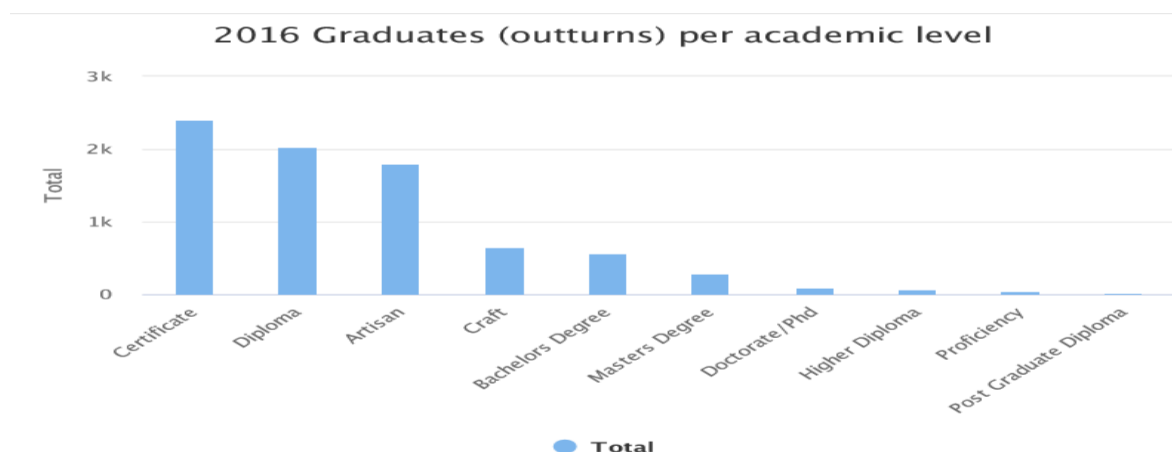
Source: [www.labourmarket.go.ke](http://www.labourmarket.go.ke)

Figure 2: Total Outturns by Categories of Training Institutions, 2014-2016



Source: [www.labourmarket.go.ke](http://www.labourmarket.go.ke)

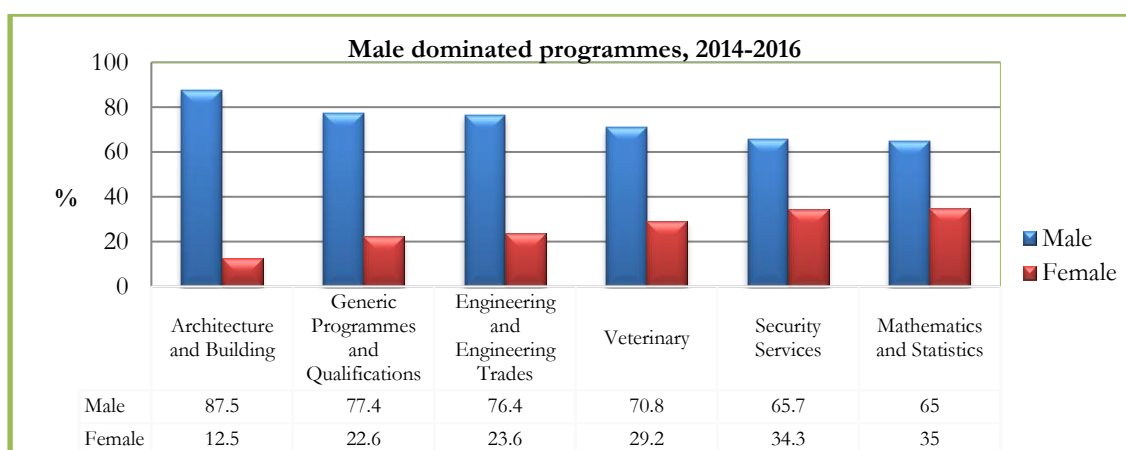
Figure 3: Graduates (Outturns) per academic level, 2016



Source: [labourmarket.go.ke](http://labourmarket.go.ke)

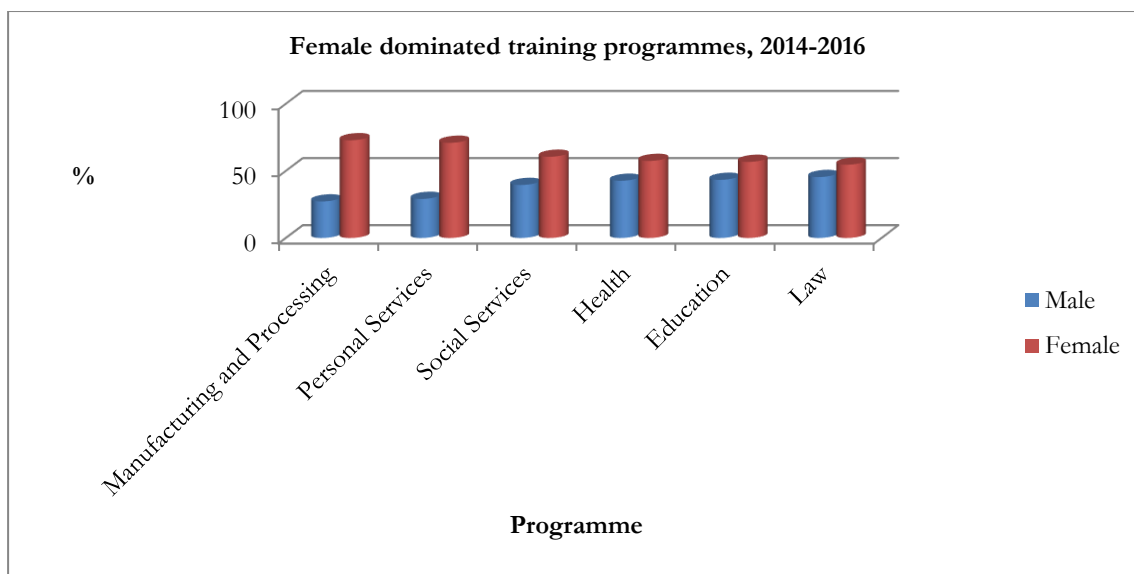
Males dominated in Architecture and Building programme, accounting for 87.5 per cent. The other programmes dominated by males were Engineering and Engineering Trades (76.4), Veterinary Services (70.8), Security Services (65.7); and Mathematics and Statistics (65) as shown in **Error! Reference source not found.** and **Error! Reference source not found.** below:

Figure 4: Top Five Male Dominated Programmes, 2014-2016



Source: [www.labourmarket.go.ke](http://www.labourmarket.go.ke)

Figure 5: Top Five Female Dominated Programmes, 2014-2016



Source: [www.labourmarket.go.ke](http://www.labourmarket.go.ke)

Polytechnics are expected to accelerate development by providing practical technical and entrepreneurial skills to the youth especially in rural areas in realization of the “Big Four” agenda. Technical and entrepreneurship skills have the potential of enabling the youth to engage in self-employment that can assure them of reasonable income and facilitate the provision of basic goods and or services to their local communities.

However, business administration and engineering and engineering trade had the highest outturns for all the 13 programmes offered at national polytechnics. This shows that national polytechnics need to improve in delivery of technical skills. With the unemployment rate at 7.4 per cent, 85 per cent of the unemployed constitute people aged below 35 years (KNBS, 2018). The failure of national polytechnics to equip students with necessary practical skills has the effect of denying the public service the supply of personnel it needs.

## 2.7 Technical, Vocational, Education & Training

In recognition of the importance of science and technology to national development, the government established institutes of technology to offer technology-related programmes mainly in health, agriculture, science, energy, education, telecommunication, computing, production and engineering sectors. A need to emphasize on health and agricultural studies at institutes of technology is imperative. Moreover, marketing the courses and offering incentives such as arrangement for internships would attract more students.

Technical training institutes are responsible for offering programmes that equip graduates with relevant skills and competencies to meet the needs of the labour market. Further, provision of skills and competencies is critical for the development of hands-on workers with skilled human resources base for national development. However, unlike their counterparts in institutes of technology, engineering and

engineering trades have a slightly higher level of outturn in technical training institutes in the country, implying they can attract a higher number of learners. Moreover, this implies that employability of graduates from such institutions is possible as they possess the skills in demand in the labour market and for the “Big Four” agenda.

## 2.8 Distribution of Manpower in the Public Sector

The distribution of manpower in the labour market shows the total number of persons employed across all economic sectors.

In 2019, wage employment in the public sector registered a 2.6 per cent growth compared to an increase of 1.2 per cent recorded in 2018. Leading activities that contributed to the increase in employment levels in the public sector were Education; Public administration and defense. Human health and social work activities recorded the highest growth (6.4 per cent) in employment. This was followed by Arts, entertainment and recreation; and Education activities, which grew by 4.5 per cent in 2019.

## 2.9 Wage Employment in the Public Sector by Type of Employer

Kenya registered a 2.6 per cent growth in employment in the public sector in 2019 compared to 1.2 per cent in 2018 (Table 8) The Teachers Service Commission (TSC), which is the largest employer in the public sector, registered a growth of 3.5 per cent in employment in 2019. County governments’ employment level registered the highest rise of 6.4 per cent in the review period to stand at 190.0 thousand persons.

Employment in corporations controlled by government declined by 0.4 per cent while that of Parastatal bodies declined by 0.5 per cent in 2019. During the year under review, employment in ministries and other extra-budgetary institutions, registered a decelerated growth of 0.3 per cent compared to an increase of 4.5 per cent in 2018.

**Table 8: Wage employment in the public sector, 2015-2019**

	2015	2016	2017	2018	2019*	Annual Percentage Change
Ministries and other extra-budgetary institutions <sup>2</sup>	177.7	179.7	197.6	206.4	207.1	0.3
Teachers Service Commission	290.7	297.8	302.9	313.6	324.5	3.5
Parastatal Bodies <sup>3</sup>	94.2	94.5	110.1	96.7	96.2	-0.5
Corporations controlled by the Government <sup>4</sup>	45.3	45.4	47.0	47.5	47.3	-0.4
County Governments	146.3	157.3	175.5	178.7	190.0	6.4
<b>TOTAL</b>	<b>754.2</b>	<b>774.7</b>	<b>833.1</b>	<b>842.9</b>	<b>865.1</b>	<b>2.6</b>

\*Provisional

Source: Economic Survey 2020

<sup>2</sup> Includes employees of Judiciary and Parliament

<sup>3</sup> Refers to Government wholly owned corporations

<sup>4</sup> Refers to institutions where the government has over 50% shares but does not wholly own them



Wage employment by industry and sex is presented in Table 9. In 2019, male employees accounted for 64.5 per cent of the total wage employment in the modern sector. Majority of female employees were working in Education, Agriculture, forestry and fishing and public administration and defence. Overall, casual employment registered a growth of 6.0 per cent and accounted for 23.4 per cent of the total wage employment.

Table 9: Wage Employment by Industry and Sex, 2018 and 2019

INDUSTRY	'000					
	Male		Female		Total	
	2018	2019*	2018	2019*	2018	2019*
Agriculture, forestry and fishing .....	225.5	215.0	111.2	123.6	336.6	338.6
Mining and quarrying .....	13.6	13.3	1.7	2.6	15.2	15.9
Manufacturing .....	259.1	292.2	88.7	61.1	347.9	353.3
Electricity, gas, steam and air conditioning supply .....	14.7	19.6	8.5	4.2	23.2	23.8
Water supply; sewerage, waste management and remediation activities	12.0	13.4	3.0	2.0	15.0	15.4
Construction .....	124.9	184.3	93.5	37.2	218.4	221.5
Wholesale and retail trade; repair of motor vehicles and motorcycles ...	201.2	190.0	59.2	79.2	260.4	269.2
Transportation and storage .....	71.4	80.7	19.3	11.8	90.7	92.5
Accommodation and food service activities .....	59.7	52.1	21.8	30.8	81.5	82.9
Information and communication .....	89.5	83.9	41.7	48.4	131.2	132.3
Financial and insurance activities .....	49.2	40.9	26.4	36.7	75.6	77.6
Real estate activities .....	3.5	2.2	0.8	2.2	4.3	4.4
Professional, scientific and technical activities .....	51.7	53.5	17.1	17.3	68.8	70.8
Administrative and support service activities .....	5.8	4.8	0.3	1.6	6.1	6.4
Public administration and defence; compulsory social security .....	199.7	163.6	96.8	141.0	296.5	304.6
Education .....	318.0	317.0	261.1	281.1	579.1	598.1
Human health and social work activities .....	66.0	71.4	82.8	86.6	148.7	158.0
Arts, entertainment and recreation .....	5.3	4.6	1.9	2.8	7.2	7.4
Other service activities .....	25.1	23.0	11.2	15.0	36.3	38.0
Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use .....	48.3	62.0	67.5	54.4	115.8	116.4
Activities of extraterritorial organizations and bodies .....	1.0	0.6	0.3	0.7	1.3	1.3
<b>TOTAL .. ..</b>	<b>1,845.2</b>	<b>1,888.1</b>	<b>1,014.8</b>	<b>1,040.2</b>	<b>2,859.9</b>	<b>2,928.3</b>
<b>Of which: Regular .. ..</b>	<b>1,408.4</b>	<b>1,410.4</b>	<b>804.2</b>	<b>831.5</b>	<b>2,212.5</b>	<b>2,241.9</b>
<b>Casual .. ..</b>	<b>436.8</b>	<b>477.7</b>	<b>210.6</b>	<b>208.7</b>	<b>647.4</b>	<b>686.4</b>

Table 10 below illustrates the distribution of manpower in the Public Sector by Occupational Groups and Sex. The table shows that males dominate the Public Sector accounting for 60.99 per cent compared to female workers at 39.01 percent. Technicians and Associate Professionals accounted for the highest percentage at 25.94 for males and 16.59 females.

Table 10: Manpower Distribution in the Public Sector by Occupational Group and Sex.

OCCUPATIONAL GROUPS	Male (%)	Female (%)	Total Number
Legislators, Administrators and Managers	2.47	1.58	17,930
Professionals	9.26	5.92	67,328
Technicians and Associate Professionals	25.94	16.59	188,651
Secretarial, Clerical Services and Related Workers	4.34	2.78	31,581
Service Workers, Shop and Market Sales Workers	12.92	8.27	94,004
skilled Farm, Fishery, Wildlife and Related Workers	0.4	0.26	2,910
Craft and Related Trades Workers	0.8	0.51	5,837
Plant and Machine Operators and Assemblers	1.36	0.87	9,920
Elementary Occupations	3.3	2.11	23,993
Unclassified Occupations	0.2	0.13	1,471
	60.99	39.01	443,625

Source: National Manpower survey (2010/2011 Basic Report).

## 2.10 Distribution of Manpower in the Private Sector

Distribution of manpower in the Private Sector by Occupational Groups and Sex also shows that males dominate the sector compared to female workers in all the occupational groups. Male employees in the private sector accounted for 68.2% of all employees.

Table 11: Manpower distribution in the private sector by occupational group and sex

OCCUPATIONAL GROUP	Male (Number)	Female (Number)	Total Number
Legislators, Administrators and Managers	79,324	20,560	90,884
Professionals	102,924	57,451	160,375
Technicians and Associate Professionals	106,830	58,009	164,839
Secretarial, Clerical Services and Related Workers	54,229	90,354	144,583
Service Workers, Shop and Market Sales Workers	82,172	42,863	125,035
Skilled Farm, Fishery, Wildlife and Related Workers	51,807	34,945	86,752
Craft and Related Trades Workers	110,833	8,614	119,447
Plant and Machine Operators and Assemblers	169,953	35,038	204,991
Elementary Occupations	159,849	75,652	235,501
Unclassified Occupations	2,358	275	2,633
<b>TOTAL</b>	<b>911,261</b>	<b>423,779</b>	<b>1,335,044</b>

Source: National Manpower survey (2010/2011 Basic Report).

## 2.11 Skill Shortages in the Civil Service

### 2.11.1 Staff Turnover in Key Cadres

The analysis of the payroll data reveals that some cadres in the Public Service have been experiencing high staff turnover particularly before the age of 40 years through transfer of service, secondment and resignations. Such cadres include Health professionals, State Law Officers, ICT and Economists. The staff high turnover causes shortage and succession challenges thus, compromising service delivery. The high turnover maybe attributed to inequitable remuneration and conditions of service, in cases of transfer and secondment. Similarly, some of the cases of

resignations have been attributed to low remuneration, stagnation, lack of enabling work environment and slow career advancement.

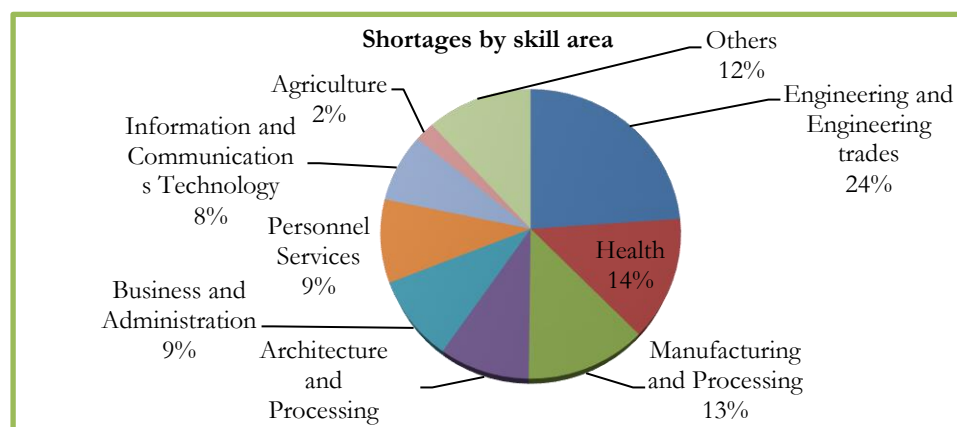
### 2.11.2 Mismatch of Skills and Jobs

Aligning skills with jobs is critical in ensuring an efficiency and effective Public Service. However, the Capacity Assessment and Rationalization of the Public Service (CARPS) Report revealed that there is mismatch between the skills held by employees and those required by their jobs. This mismatch involve Skills deficit (gaps), skills underutilization, overeducated and undereducated. This is an issue that requires to be addressed.

### 2.12 Outturns from Training Institutions

Data obtained from the Ministry of Labour and Social Protection indicates that Engineering and engineering trade, health and manufacturing and processing are the top three in terms of skill shortages in all training institutions in the country. Other skill areas that have registered shortages include architecture and business and administration, personal services and information and communication technology. This means that the government needs to address shortages in skills if it is to achieve the “Big Four” agenda. All the others skill areas including mathematics and statistics, physical sciences, veterinary, biological and related sciences, environment, hygiene and occupational health services, law and transport services combined registered 12 per cent outturn as in **Error! Reference source not found.** below:

Figure 6: Shortages by skill area in all training institutions, 2016



Source of Data: Ministry of Labour and Social Protection (2018)

### 2.13 Public Sector Vacancies by Skill Area and Level

In 2018, the public sector had the highest job creation potential for job openings (with Public administration and defense; compulsory social security accounting for 71.8 per cent of total jobs advertised) at both national and county government levels. Figure 14 and 15 provide information on skill areas and levels demanded by employers. Out of the total jobs advertised, 22.71 required skills in Business and Administration followed by skills in Engineering and Engineering trades at 13.74 per

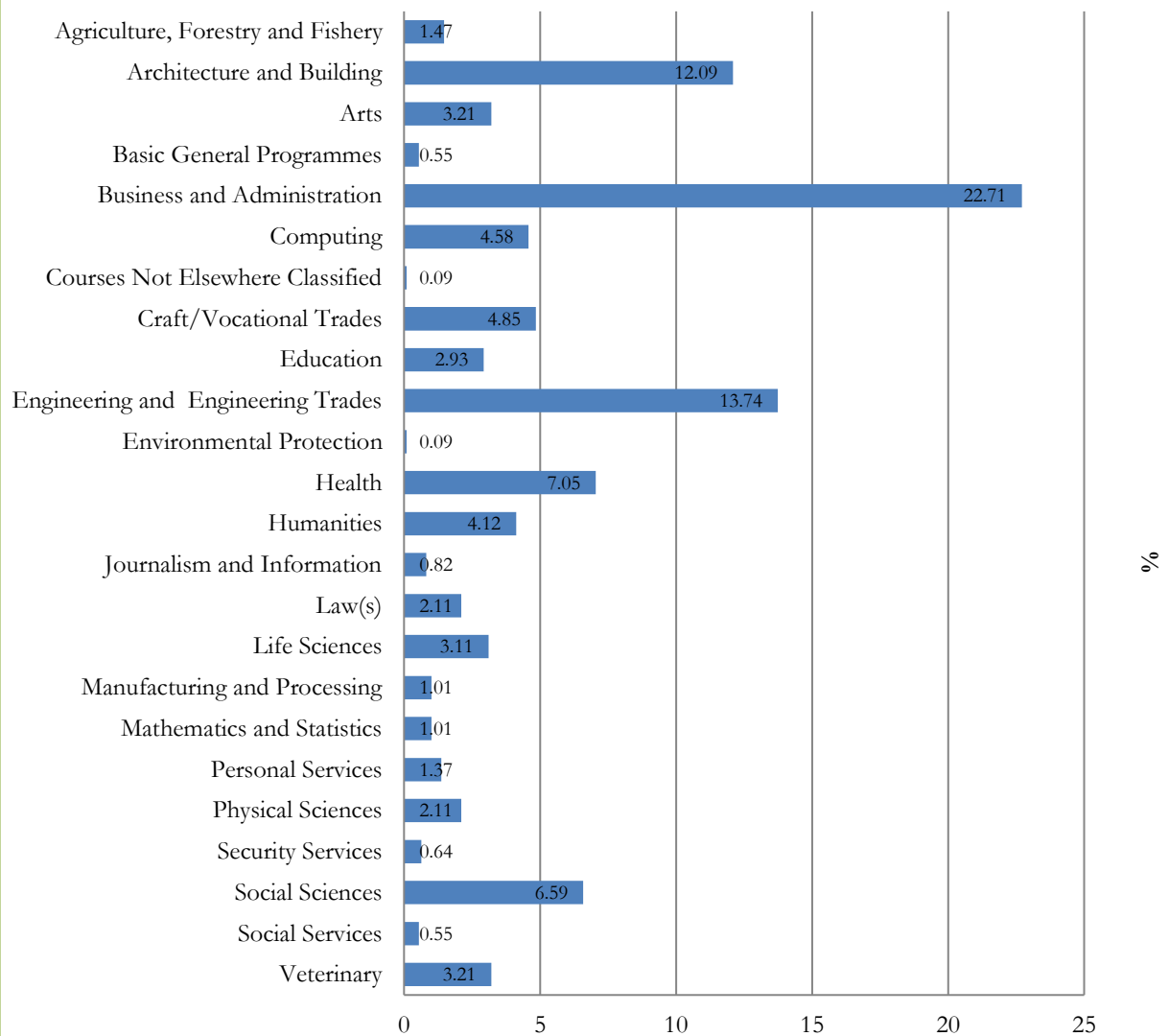
cent and Architecture and Building at 12.09 per cent. The least demanded skill area was in Environmental Protection. In terms of level of training, bachelors' was highest in demand at 61 per cent followed by Diploma at 16 per cent. It's also noted that 1 per cent of the jobs did not require any certificate as shown in **Error! Reference source not found..**

#### 2.14 Current Job Creation Trends

According to Kenya's Economic Survey, in 2019, total new jobs generated in the economy were 846.3 thousand of which 78.4 thousand were in the modern sector while 767.9 in the informal sector. Wage employment in the private sector increased by 2.3 from 2017.0 thousand persons in 2018 to 2063.1 thousand persons in 2019. Within the public sector, wage employment increased from 842.9 thousand persons in 2018 to 865.2 thousand persons in 2019.

Figure 7: Vacancies by Skill Area

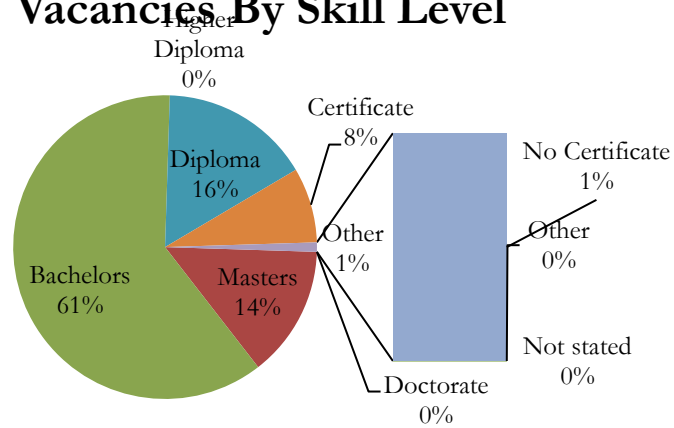
## Vacancies by skill area



Source: Ministry of Labour Job Opportunity Analysis (2018)

Figure 8: Vacancies by Skill Level

## Vacancies By Skill Level



Source: Ministry of Labour Job Opportunity Analysis (2018)

## CHAPTER THREE: SKILLS NEEDS ANALYSIS

### 3.0 Preamble

This chapter focuses on analysis of data and study findings in terms of skills needed in the four thematic areas mirrored on the 'Big Four' Agenda areas viz: Food and Nutrition Security, Manufacturing, Affordable Housing, and Universal Health care for national transformation as espoused in the third medium term plan of the Kenya Vision 2030.

### 3.1 Data Review

#### 3.1.1 Capacity Assessment and Rationalization of the Public Service (CARPS)

The Capacity Assessment and Rationalization of the Public Service (CARPS) programme study was conducted and a report issued in February 2016. The study findings revealed, among others, that the public service workforce is experiencing shortage of technical and professional skills in critical areas.

Some of the fields that were identified as priority areas lacking skills were in the following fields and job families: *Health sector personnel*: doctors, nurses, clinical officers, medical laboratory technologists/technicians; *Engineers* – Civil , Structural, Electrical, Mechanical, Water, Agricultural; and *other job families* – Architects, information Communications Technology (ICT) Specialists, Geologists and Miners, Physical Planners, Weights and Measures specialists, Environmentalists, Meteorologists, Accountants, Economists, Research and Development Personnel, Legal Service Personnel, and Agricultural sector personnel.

The following considerations were made in determining scarce skills: Kenya vision 2030 and the Medium Term Plan (2013-2017); Supply of priority skills versus future demands as highlighted in the institutional review of each Ministry/Department/ and County; the extent to which the function requiring the skill is devolved; level of specialization and the adequacy of distribution of staff in respect of the devolved functions; urban versus rural distribution of a County; and skill demanded by emerging important sectors in the economy such as ICT and Mining.

The Public Service skills assessment conducted by CARPS and which identified the skills indicated above mainly focused on academic qualifications; areas of specialization; professional qualifications; job families; and years of service. It did not cover behavioural attributes, which is an important element of competence, because the Public Service did not have a competency framework to guide the process as at that time.

### 3.1.2 Third Medium Term Plan (MTP III) and County Integrated Development Plans (CIDPs)

Review and analysis of various documents that include CARPS report, Third Medium Term Plans, strategic plans, County Integrated Plans, Annual Plans, and county development strategy papers reveal the following:

- a) Most MDCAs have articulated a strategic and forward-looking vision for their public service sectors that recognizes the need for highly skilled civil servants to drive public sector performance.
- b) The use of Public Service Competency Framework is emerging as a clear trend in most agencies, with a primary focus on core values, leadership, managerial and technical competencies. These are important cross-cutting competencies that should be complemented by professional expertise in specific subject matter areas.
- c) Bringing these themes together in future-oriented workforce planning remains a core challenge for public sector HRM&D. Workforce planning driven by skills and competencies, instead of numbers and costs, is essential to ensure that both capacity and capability considerations are factored into HR decision making. This suggests the need to develop better data on workforce skills, which are not available (as what exists is professional and academic qualifications available in GHRIS), as well as foresight capacity in order to ensure that the workforce keeps pace with the fast pace of technological and social change.

### 3.2 Skills Gap Analysis

Skill Gap Analysis and Process Skill gap analysis is the process of measuring the differences between an individual's capabilities and the required capabilities of the job role. Thus a skill gap analysis aims at identifying the priority competencies and learning needs of a group or an individual. The identified priority competencies are then rated as critical or core (a high level of proficiency is mandatory for success in the role) or preferred (nice to have to ensure success). The whole process entails identifying all the skills required by an individual to carry out his or her work and thereafter classify the skills into critical and non-critical skills.

A critical skill is one that is required to complete a task successfully while a non-critical skill enables a task to be completed quickly or efficiently, or at a lesser cost than would otherwise be the case.

Realization of the "Big Four" agenda requires sufficient manpower in health, food security, manufacturing and housing.



## 3.2.1 Manufacturing Sector

### 3.2.1.1 Civil Service Cadres: Trade and Industry Services

Trade and Industry Services Function involves facilitation and regulation of trade and industry, through policies and standards. The cadres identified under this service are as shown in Table 12:

Table 12: Cadres in Trade and Industry

S/No	Cadre
1.	Industrial Development Officers
2.	Weights and Measures Personnel
3.	Tourism Personnel
4.	Enterprise Development Officers
5.	Trade Development Officers

### 3.2.1.2 National Level Skills Deficit Areas

The Government under the MTP-III has committed to “providing every Kenyan with decent and gainful employment” through enhancing skills and capacity development for mid-level technicians for the existing and emerging sectors and skills development addressing capacity and knowledge gap in identified sectors for effective policy/operation dialogue with and within government.

It aims at addressing skills shortages in existing and emerging priority sectors in textile and apparel skills, and Medium and Small Enterprises (MSE) in manufacturing and housing construction industries; providing apprenticeship training in the formal and informal sectors; enhancement of industrial attachment and the launching of national internship programs to address skill mismatches; and upgrading and expansion of existing TVET training centres.

The State Department for Industrialization in its strategic plan has noted that there is scarcity of skills in the technical areas which involves industrial development & transformation, investment, finance & enterprise development in the technical directorates. The State Department further notes that Industrial Development Officers with specializations in the following areas are required:

- |   |   |
|---|---|
| (i) Engineering (Mechanical, civil, electrical, chemical, electronics, metallurgy, aeronautical, agricultural); | (vi) Textile Technologists              |
| (ii) Agriculturalists,  | (vii) Textile production technologists  |
| (iii) Animal health, animal production and range management specialists,  | (viii) Leather technologists/scientists |
| (iv) Food technologists,  | (ix) Wood Scientists                    |
| (v) Clinical nutritionists and dietetics  | (x) Veterinarians                       |
|   | (xi) Pharmacists,                       |
|   | (xii) Geologists,                       |
|   | (xiii) Environmentalists                |
|   | (xiv) Chemical scientists               |
|   | (xv) Biochemists                        |

- (xvi) Commerce and enterprise managers
- (xvii) Computer Technicians and technologists

- (xviii) Economists/Statisticians/Mathematicians

In addition, technical specialists need managerial and leadership competencies to be developed in project management, policy analysis and strategic management.

### 3.2.1.3 County Government Skills Deficit Areas

The team undertook desk review of several county planning documents including County Integrated Development Plans, Council of Governor's devolution reports, county visions where applicable, county annual plans and other departmental policy documents, segregating aspects of skills needs necessary to spur growth in manufacturing as an third medium term plan pillar for national transformation.

Official documentations reviewed provide insights into skills gaps across the counties. It can be argued that these gaps translate to feasible development gaps, under the Medium Term Plan III on manufacturing. As revealed in Figure 9 below review of secondary data suggests heterogeneity of skill gaps across the counties. At least, one (1) in every two (2) counties identified forest scientists, agriculturalists, horticulturalists, scientists and enterprises development experts as critical skill gaps inhibiting manufacturing. This implies that counties perceive agriculture and forestry-related activities as imperative in boosting the manufacturing sector as opposed to other livelihood activities.

The review also reveals that much of the skills necessary for manufacturing to thrive as per national projection i.e. industrial development skills, were only identified in one (1) in every four (4) counties. It is noted that whereas negotiation skills could provide a breakthrough in harnessing manufacturing and improving performance of the manufacturing sector, only 5 counties have indicated a need for the developed of the competencies in this area for their employees tasked with managerial and leadership responsibilities.

The study revealed that agriculturalists are in high demand in twenty six (26) counties as shown in Figure 9. However, only less than half this number has spotted gaps in value addition of agricultural produce. At the same time it is observed that only three (3) counties indicated scarcity of weights and measures officers yet this is a critical area in ensuring that weights of manufactured products are within the specified specifications.

The distribution of the top 15 skill gaps across counties is as represented on Figure 10. It is gleaned that no county fronts in entirety the commonly identified skills. Kakamega County identified 12 out of the 15 skills while Kwale, Samburu, Elgeyo Marakwet and Kisii identified a different combination of 10 skills. Taita Taveta,

Narok, Kericho, Nandi and Bomet counties identified a skill each among the top 15 skills that are highly in demand.

Figure 9: Distribution of Skill Gaps across the Counties

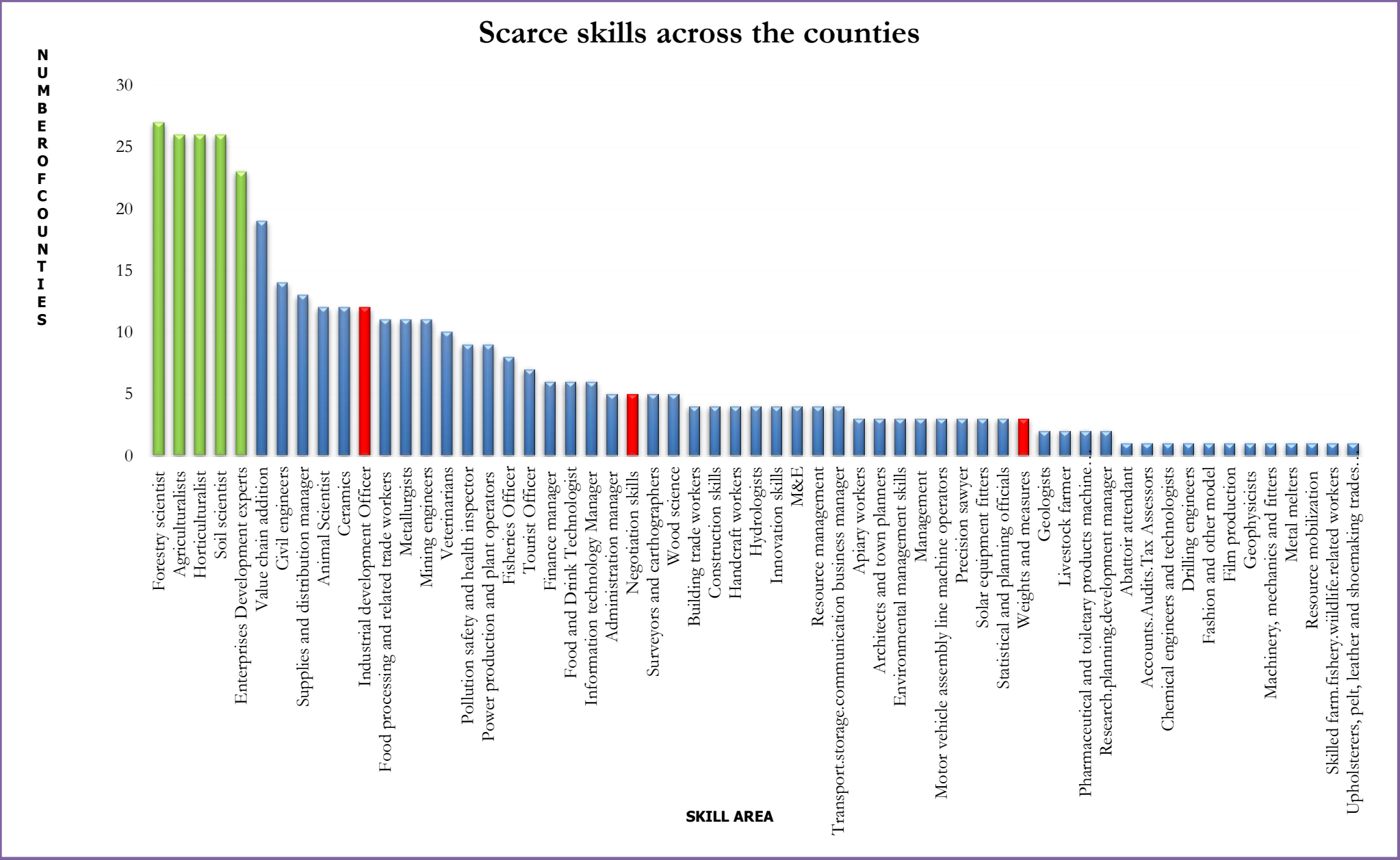
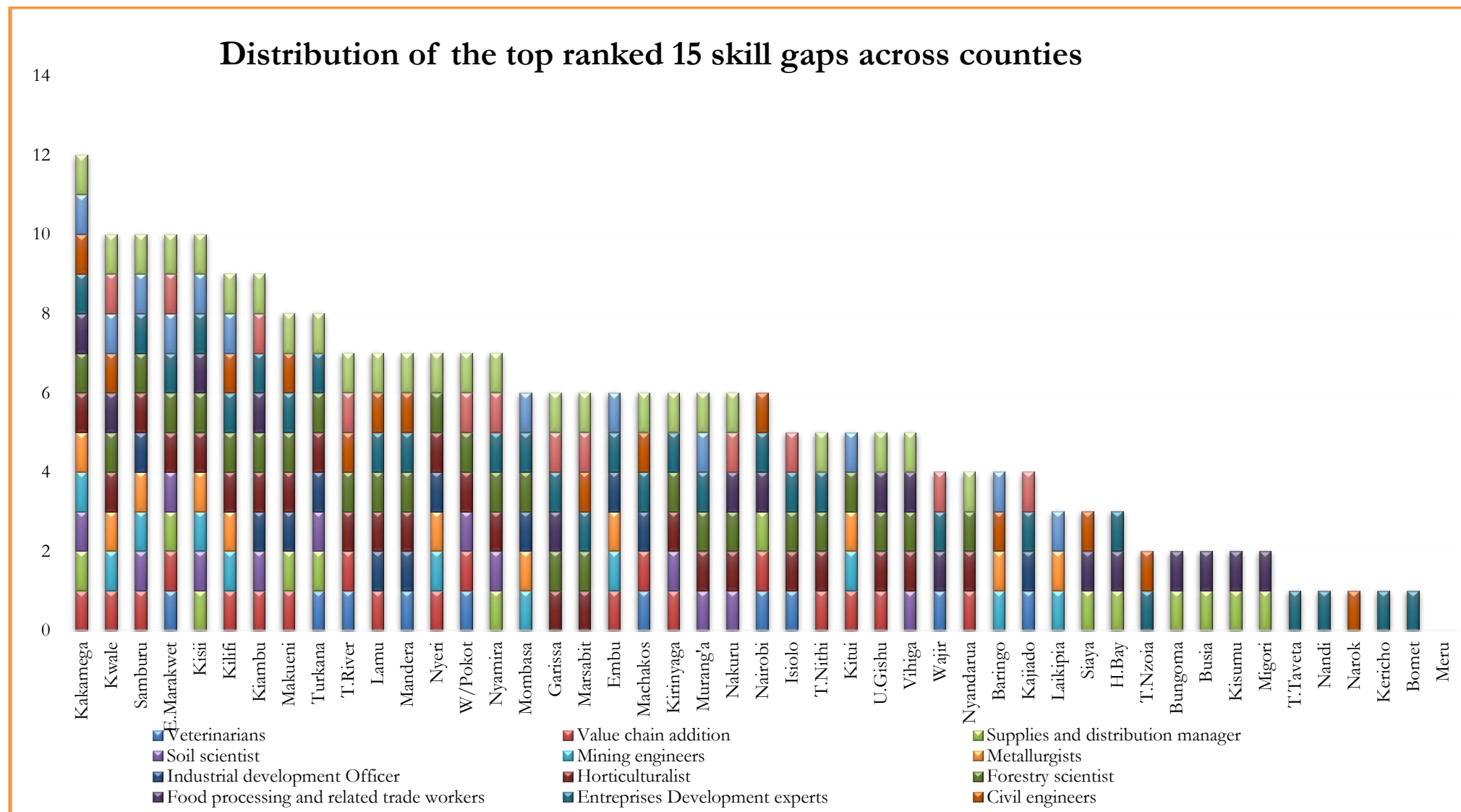


Figure 10: Cross County Distribution of top ranked 15 skill gaps



## 3.2.2 Food and Nutrition Security

### 3.2.2.1 Agricultural, Livestock and Fisheries Services Cadres

Agricultural, livestock and fisheries Function is responsible for development, implementation, evaluation and review of policies, programmes and standard. The cadres identified under this Service are as in Table 13 below:-

**Table 13: Cadres in Agriculture, livestock and fisheries**

S/No	Cadre
1.	Agriculture Personnel/officer
2.	Fisheries Personnel
3.	Livestock Production Personnel
4.	Veterinary Services Personnel
5.	Leather Development Officer
6.	Hides and Skins Personnel
7.	Range Management Officers
8.	Irrigation personnel

#### 3.2.2.1.1 National Government Sector High Priority Skills

Sector	SD - Agriculture	SD - Livestock	SD – Fisheries
Agribusiness	Agricultural engineers	Animal health technician	Coast Guards
Agriculture education and extension	Agriculture economist	Animal husbandry	Composite designer
Agriculture information and communication manager	Agronomist	Animal therapist	Deep sea seafarer
Agri-marketing	Botanist	Apiarist	Electro-technician
Biotechnologist	Crop protection specialist	Apiculture technician	Engine room attendant
Climate Smart Technology and Innovation technician	Horticulture specialist	Breeder	Engineer (ship)
Cold room attendant	Hydroponics specialist	Dairy technician/technologist	Fish cage fabricator
Conservation agriculture	Paddy rice technician	Entomologist	Fish farm technician
Cooperative auditors	Post-harvest handling and storage	Herder	Fish feed formulator
Cooperative officers	Seed technologist	Leather technician	Fish processing
Data management	Soil fertility specialist	Livestock extension officers, Livestock production	Fish quality improvement
Disaster early warning systems technician/technologist			Fish scouts
Disaster Management Officers		Livestock Production nutritionist	Fisheries technicians/technologists
Disease epidemiologist		Meat inspector	Fishers
Disease surveillance		Meat processor	Geologist
Drought surveillance		Range manager	Geo-mapping
Environmentalist		Vaccine production technician	Geo-spatial planner
Extension services coordinator		Veterinary	GPS-GIS- technician
Farm mechanisation			Marine biologists

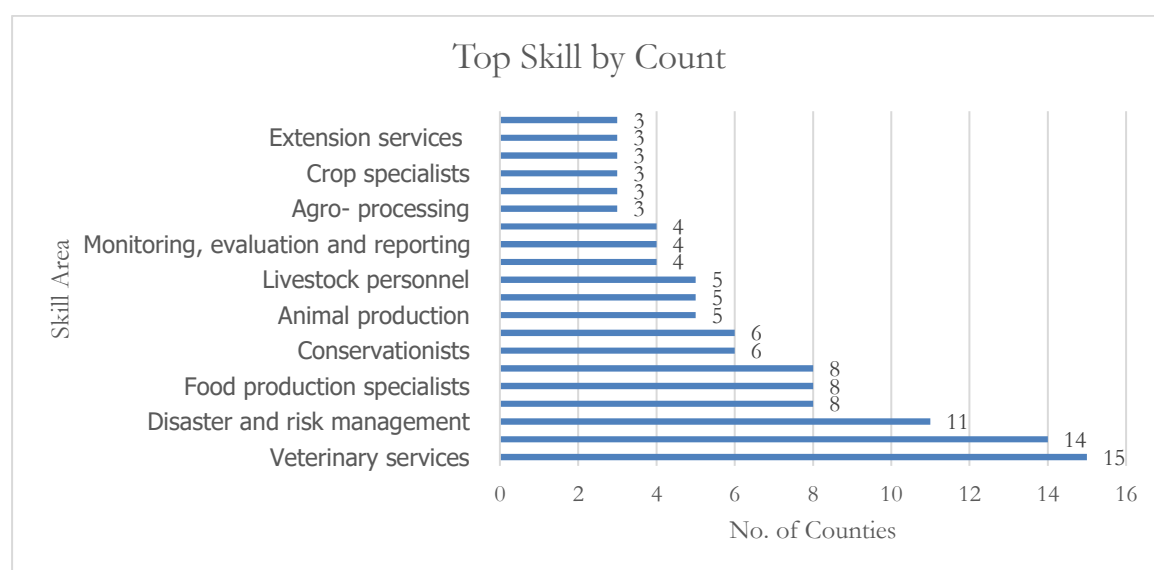
Sector	SD - Agriculture	SD - Livestock	SD – Fisheries
technician/technologist			
Farm produces value addition			Marine electricians
Farm structure design			Oceanographer
Farm structure layout			Pond constructor
Farmhand/ manager			Purser
Food and nutrition safety technician			Steward

### 3.2.2.1.2 Scarce and High Priority Skills in Counties

A total of eighty three (83) skill areas were identified by the counties. The **Table ...** below shows the Top Skills by Count as identified by three (3) or more counties. Veterinary services include poultry, livestock and animal health specialists identified individually by some counties. Value addition was a broad statement expressed by the ten (10) counties where individual counties indicated as below:

- (i) Embu: agriculture and industrial produce.
- (ii) Nyandarua: agro- forestry & agro processing
- (iii) Samburu: agro industries
- (iv) West Pokot: Aloe vera, Mangoes, Milk, Wool, Sunflower
- (v) Tharaka- Nithi: banana, coffee and tea processing; livestock products as well as aqua- culture & river line capture skills.
- (vi) Kirinyaga: bananas, coffee, green grams, tomatoes, sugarcane, mangoes, watermelons and dairy.
- (vii) Kitui: cassava and sweet potatoes; Fruit pulp industries and dried mango strips
- (viii) Kiambu: Cereals and nuts; coffee, dairy, fish, hides, pineapple.
- (ix) Nyeri: coffee, fruits, meat, tea and vegetables
- (x) Makueni: Dairy and livestock

**Figure 11: Top Skills needs in Counties in Agricultural sector**



### 3.2.3 Affordable Housing

#### 3.2.3.1 Civil Service Cadres in Building Services

#### 3.2.3.2 Job Family: Building Services

The Building Services Function is responsible for Building Services policies, standards and benchmarks. The cadres identified under this Service are as in Table 14 below:-

Table 14: Cadres in Building Services

S/No	Cadre
1.	Architects and Architectural Assistants
2.	Housing Infrastructure Officers
3.	Social Infrastructure Officers
4.	Inspectors (Building)
5.	Housing Planning Officers
6.	Quantity Surveyors and Quality Survey Assistants
7.	Building Surveyors
8.	Estate Management Personnel
9.	Rent Inspectors
10.	Graphic Design Personnel
11.	Structural Assistants

#### 3.2.3.3 Job Family: Operations Function

The Operations Function is carried out through manual dexterity and basic skills and proficiency. The cadres identified under this Service are as in Table 15 below:-

Table 15: Operations Function cadres

S/No	Cadre
1.	Plant Operators
2.	Artisans
3.	Tailors
4.	Mechanics
5.	Technicians
6.	Gardens Personnel
7.	Equipment Technicians
8.	Boiler Attendants

#### 3.2.3.4 Job Family: Engineering and Related Service Personnel

Engineering and Related Service Function facilitates development of engineering and related services policies, standards and procedures and development of engineering-based infrastructure. It also enforces the relevant Acts. The cadres are as in Table 16 below:

Table 16: Engineering and Related Service Personnel



S/No	Cadre
1.	Mechanical Engineers
2.	Electrical/Electronics Engineers
3.	Structural Engineers
4.	Civil Engineers
5.	Mining Engineers
6.	Agriculture Engineers
7.	Water Engineers
8.	Oil and Gas Engineers

### 3.2.3.5 National Government scarce skill areas in the housing sector

- |   |   |
|---|---|
| (i) IT specialists  | (viii) Surveyors (building surveyors, geomatics and land surveyors, hydrographic surveyors, quantity surveyors, engineering surveyor)         |
| (ii) GIS specialists  |   |
| (iii) Environmentalists   |   |
| (iv) Engineering skills (Mechanical Engineers, Electrical Engineers, Civil/Structural Engineers,                      | (ix) Housing officers (Economists, Statisticians, Real Estate/Land Economists/Valuers, Construction Management Experts and Environmentalists) |
| (v) Engineering technician/building inspector skills in civil/structural, mechanical and electrical building services | (x) Architectural skills (Architects, architectural draughtsmen, landscape architects)  |
| (vi) Artisans i.e. plumbers, electricians, masons, painters, carpenters, steel fixers, tile fixers, etc               | (xi) Construction managers  |
| (vii) Charge hands  | (xii) Urban /Regional Planners  |
|   | (xiii) Physical Planners  |

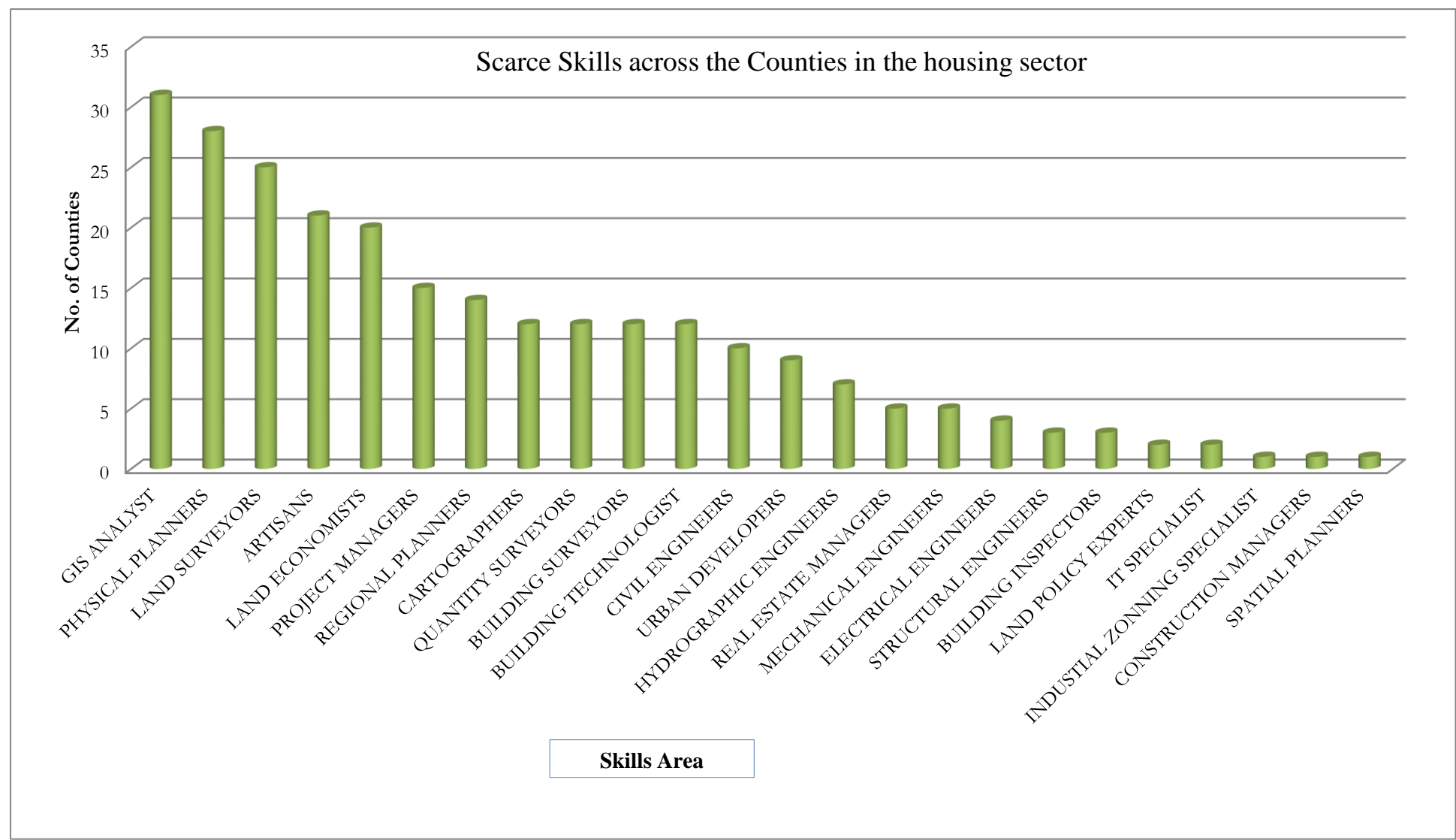
### 3.2.3.6 Skills Gaps in Housing Sector in Counties

From the analysis of the data analysed as shown in Figure 12 below, it is observed that;

- (i) Most of the counties had fairly indicated that they were in need of a high number of GIS analyst, Physical planners and land surveyor.
- (ii) Cartographers, quantity surveyors, building surveyors and building technologists were somewhat available in an equal number of counties
- (iii) In all the counties analysed, industrial zoning specialists, construction managers and spatial planners were scantily forming the least number of skills available
- (iv) Most of the counties, whose skills on affordable housing were analysed, had some of the skills required but in a proportion that seemingly could not effectively deliver on the housing agenda.
- (v) Artisans and Land Economists followed by project managers and Regional Managers are also in high demand.
- (vi) In all counties analysed Industrial zoning specialist, construction managers and Spatial planners are the least sought skills.

- (vii) Most of the counties whose skills on affordable housing were analysed, had some of the skills required but in a proportion that seemingly could not effectively deliver on the housing agenda.

Figure 12: Distribution of Skill Gaps in Housing Sector across the Counties



### 3.2.4 Universal Health

#### 3.2.4.1 Civil Service Cadres in the Health Sector

##### 3.2.4.1.1 Job Family: Curative Health Services

Curative Health Services function is responsible for planning of health and medical programmes.

**Table 17: Cadres in Curative Health Services**

No.	Cadre
1	Medical Officer/Specialist
2	Dental Personnel
3	Medical Laboratory Technologists and Technicians
4	Pharmaceutical Personnel
5	Plaster Technicians
6	Orthopedic Technologists and Technicians
7	Medical Engineering Technologists and Technicians
8	Nursing Personnel
9	Clinical Personnel
10	Physiotherapists
11	Occupational Therapists
12	Radiography Personnel
13	Radiographic Film Processors
14	Medical Parasitologist
15	Entomologist
16	Mortuary Attendants
17	Medical Social Workers
18	Medical psychological Counselors
19	Health Administrative Officers

##### 3.2.4.1.2 Job Family: Preventive Health Services

Preventive Health Services Function is responsible for educating the Public on ways and means of keeping healthy and protecting the public from harmful products and practices.

**Table 18: Cadres in Preventive Health**

S/No.	Cadre
1	Health Education Personnel
2	Family Planning Educators Personnel
3	Public Health Personnel
4	Community Oral Health Officers
5	Inspectors of Drugs
6	Radiation Protection Officers
7	Nutrition Personnel

#### 3.2.4.1.3 Job Family: Science Services

The Science Services Function provides research and analysis services and expertise in areas of environment, geology, mineral resources and pure science, as well as designing policies, standards and procedures in the science and related services.

Table 19: Science Service Cadres

S/No	Cadre
1.	Physicists
2.	Water Research Personnel
3.	Chemists/Analysts/Biochemists
4.	Zoologists/Botanists
5.	Natural Research Scientists
6.	Resource Surveys and Remote Sensing Personnel
7.	Laboratory Technologists and Technicians
8.	Parasitologists
9.	Science Secretaries

#### 3.2.4.1.4 Job Family: Records and Documentation Services

The Records and Documentation Services Function involves development of policies and standards on records and documentation services. This involves preservation of records, development of information management systems, information security, archives and documentation services and records management.

Table 20: Cadres in Health Records

S/No	Cadre
1.	Health Records and Information Personnel

#### 3.2.4.2 Skill Shortages in Health Sector

According to Economic Survey 2019, there are noted gaps in human resources for health, despite being one of the core building blocks of a health system. Global evidence points to a direct correlation between the size of a country's health workforce and its health outcomes. Kenya had 14 doctors per 100,000 population and only 42 nurses per 100,000, respectively, in 2016, excluding the private sector (Universal Health Care Road Map, 2018). The health worker density target was 7 per 10,000 people, and the achievement at mid-term was 6 per 10,000. Kenya has not been able to fill the approved positions in all the health facilities; the gap is worse in primary health facilities than tertiary care. Specialized medical care is mostly available in urban areas, with inequity in distribution of workforce.

Figure 13: Skills Deficiencies in Counties in the Health Sector

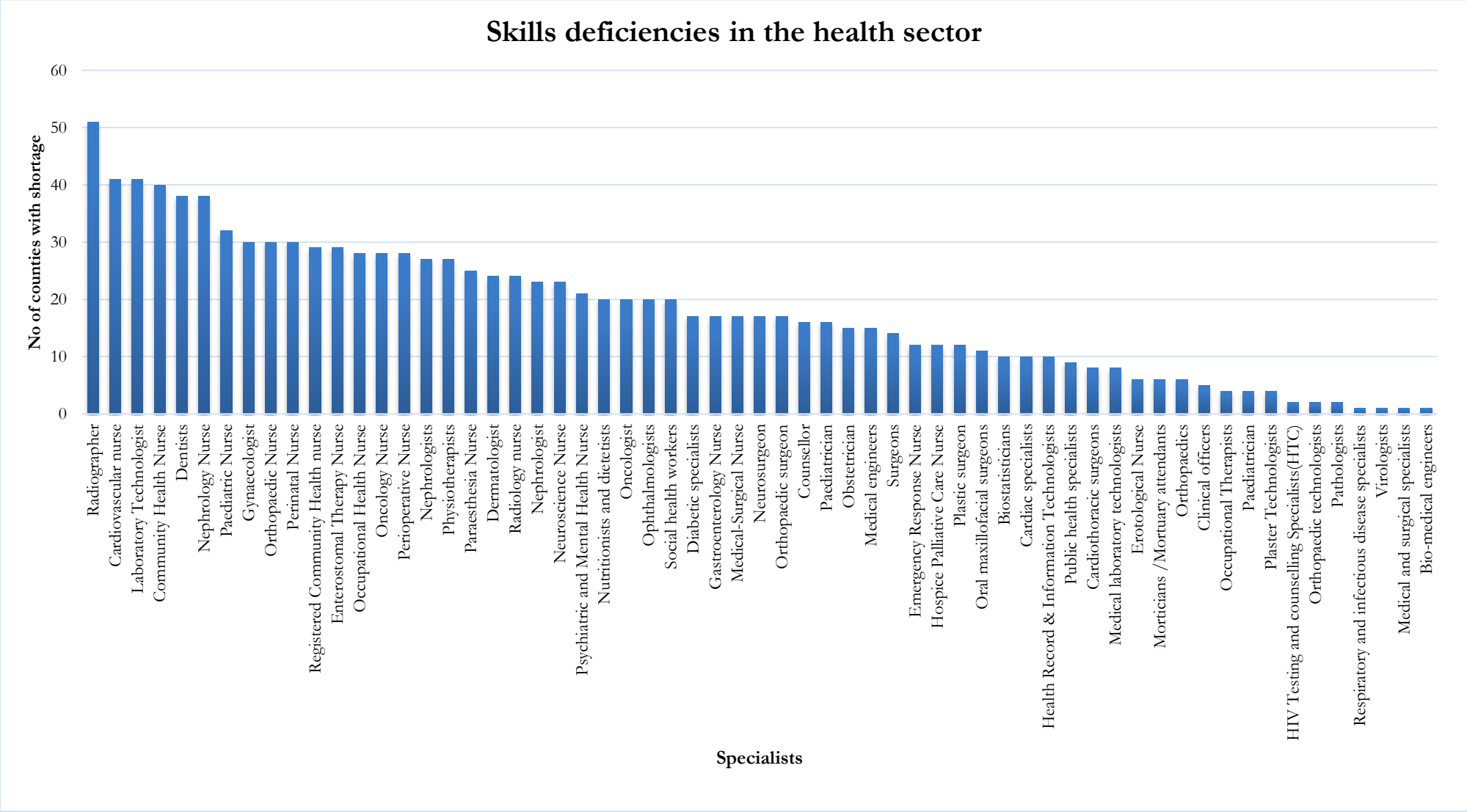
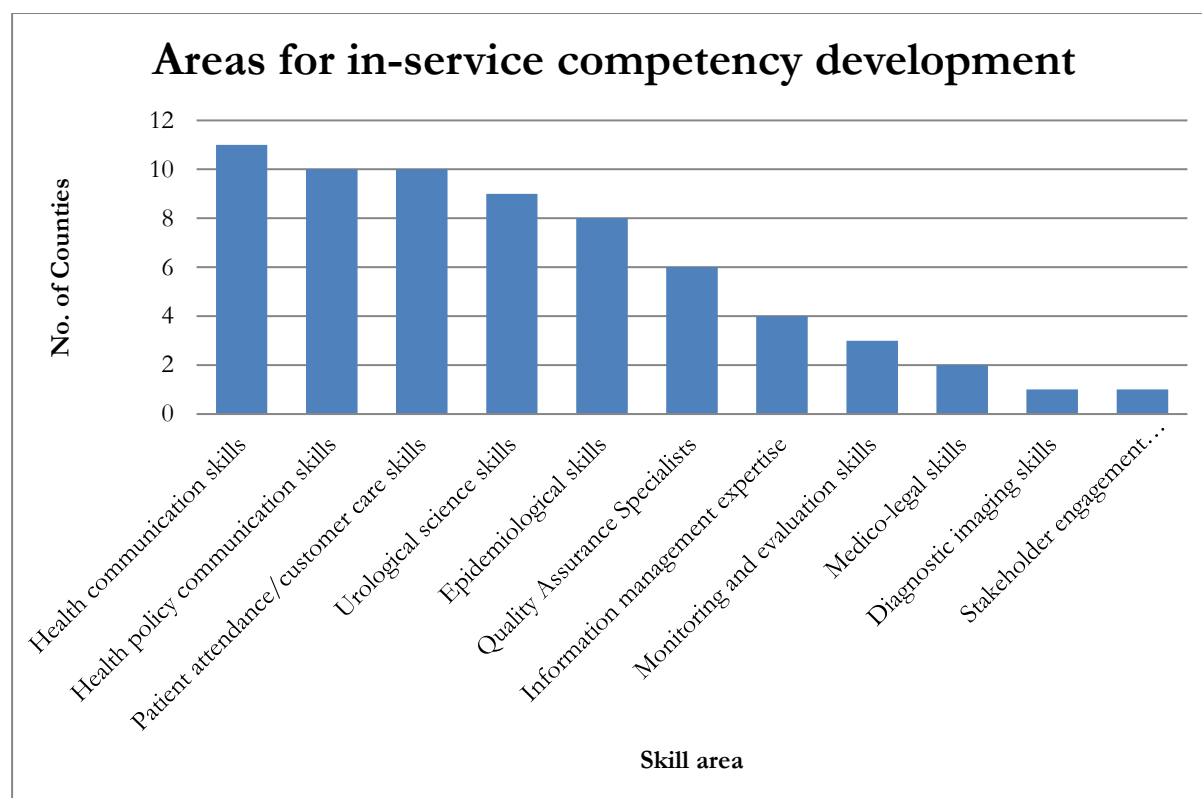


Figure 14: Areas for In-service Competency Development



From the literature reviewed from the lead sectors in the implementation of the “Big Four” agenda, the following challenges were identified:

- (i) Un-coordinated approach in addressing skill shortages in the public service
- (ii) Ensuring local flexibility and adaptability for nationally designed policies:
- (iii) Building partnerships at the local and national level to improve linkages between training institutions and industry
- (iv) Engaging employers: Shortages are mainly a concern in specific sectors, such as health care and care giving, engineering and information technology
- (v) Innovation and entrepreneurship: Successful entrepreneurs require a range of skills, both generic and job-specific,
- (vi) Local flexibility and adaptability: There is a strong need for regionally adjusted solutions as regions tend to be either in a high- or in a low skills equilibrium with completely different economic needs.

## CHAPTER FOUR: STRATEGIC INTERVENTIONS

### 3.3 Preamble

This chapter highlights strategic issues in filling skills gaps identified in the study. It also identifies the strategic objectives and the strategies for achieving the same. The strategic issues include development of human resources in the public service, workforce planning, development of skills development strategy for the public service, recruitment and selection for key technical cadres, and strengthening institutional framework

### 3.4 Strategic Issue 1: Development of Human Resources in the Public Service

**Strategic Objective:** To enhance skills and competences for improved productivity and quality service delivery.

**Strategy 1:** *Re-examination of Employee Development Approaches*

#### **Key Activities**

- (i) Reinventing government's talent development through training geared towards developing individual competencies.
- (ii) Reskilling and up skilling employees to learn new skills in areas with identified skill shortages and that require a new skills set.
- (iii) Adopting shared services strategies to help departments pool their resources to meet their common needs;
- (iv) Defining programs to teach the knowledge foundation and capabilities required for specific lines of work;
- (v) Embrace job-rotation within the MDA and County Departments to help employees develop a broader vision of their work;
- (vi) Initiating mentoring programs specific to lines of work; and
- (vii) Talent trading, including programs that bring in private sector leaders and leaders from other agencies to provide insights on managing and developing talent.

**Strategy 2:** *Implementation of Public Service Competency Framework*

#### **Key Activities:**

- (i) Undertake Identification of the core competencies of occupational and professional groups
- (ii) Train employees in the competencies they will need, and certify them for the skills they bring
- (iii) Creation of flexible teams that match the competencies
- (iv) Encourage registration and active participation in professional groups to foster continuous learning about the skills employees need



- (v) Reskilling the government's workforce to match job requirements

**Strategy 3:** *Development of a framework for liaising with training institutions to bridge skills gaps in the public Service*

**Key Activities:**

- (i) Identify requisite skills and competences necessary for Vision 2030;
- (ii) Identify skills gaps and requisite action required to address the gaps in the Service
- (iii) Liaise with training institutions to craft intervention strategies
- (iv) Determine and mobilize resources required; and
- (v) Establish monitoring and evaluation framework.

**3.5 Strategic Issue 2: Workforce Planning**

Objective: To encourage MDCAs to build workforce planning strategies that work best and are cost-effective.

**Strategy 1:** *Development of a Master Plan for Scarce and High Priority Skills for the Public Service*

**Key Activities**

- (i) Conduct a study to identify skills gaps in Ministries Departments and Counties
- (ii) Identify scarce and high priority skills
- (iii) Identify the sectors with skills deficit
- (iv) Liaise with training institutions to determine outturns by specialization
- (v) Develop a skills master plan for the public service;
- (vi) Sensitize staff on the skills master plan.

**Strategy 1:** *Strategic visioning for human capital needs and reshaping the future workforce for a changing work environment.*

**Key Activities**

- (i) Review of internal and external labour markets and critical job of workforce needs aligned to strategic plans, county integrated development plans, approved budgets
- (ii) Identifying the right skills that the each MDCA needs in the short, medium and long term perspective
- (iii) Establishing whether or not individuals can successfully be retrained or up skilled;
- (iv) Learning the most effective ways to transfer or instil specific kinds of new knowledge; and
- (v) Determining how to train supervisors and managers to lead and build on innovation.

**Strategy 3:** *Development of three (3) year workforce training plans.*

**Key Activities:**

- (i) Conduct training Needs Assessments after every three (3) years
- (ii) Generate annual training plans/projections
- (iii) Develop and update the skills inventory;
- (iv) Identify requisite skills and competences to meet objectives of strategic plan;
- (v) Determine and mobilize resources required.

**Strategy 4:** *Develop a Talent Management Framework for the Public Service.*

**Key Activities:**

- (i) Conduct a study to identify existing talent gaps;
- (ii) Recruit staff to fill the identified talent gaps;
- (iii) Identify and develop a pool of talents for succession;
- (iv) Develop a system to attract and retain unique talents; and

Sensitize staff on talent Management Framework for Public Service.

**Strategy 5:** *Review of Pay and Compensation Policy*

**Key Activities**

- (i) Review job classifications
- (ii) Harmonise grading structures across the Service
- (iii) Fast-track implementation of job evaluation study results
- (iv) Develop salary structure to accommodate horizontal salary progression

**3.6 Strategic Issue 3: Development of a Skills Development Strategy for the Public Service**

**Strategy 1:** *Determine the extent of mismatch of skills to jobs*

**Key Activities**

- (i) Undertaking a survey to determine the extent of mismatch of skills to jobs;
- (ii) Undertake deployment and re-deployment of task to match skills to the available jobs;
- (iii) Enhancement of the capacity of public service training institutions to deliver by investing in infrastructure, facilities, equipment, materials and staff development;
- (iv) Strengthening the links between skills demand and skills development
- (v) Ensuring broad and continued access to quality training and skills development, career guidance and counselling
- (vi) Establishing a system for labour market forecasting and information
- (vii) Establish a mechanism for recognition, validation and accreditation of skills for the mobility of the workforce.

- (viii) Involvement of all stakeholders including employees, public sector in-service trainers, universities and colleges in the development of mechanisms for efficient recognition, validation and accreditation
- (ix) Development of Soft skills-competencies, functional skills –Technical and compliance- skills
- (x) Leveraging on investment in Information Technology to entrench e-learning approaches

## **Strategy 2: *Engraining a Lifelong Learning Culture***

### **Key Activities:**

- (i) Enhancement of training budget to 2% of a MDCAs recurrent expenditure
- (ii) Ensure a well-coordinated management of the training function.
- (iii) Fast-track development of managerial and leadership competencies for contracted leadership positions
- (iv) Application of a broader range of tools, such as mentoring, coaching, networking, online professional conferences, peer learning and understudy mobility assignments to promote a learning culture

## **3.7 Strategic Issue 4: Recruitment and Selection for Key Technical Cadres.**

**Strategic Objective:** *To identify, attract and retain talent within employment*

### **Strategy 1: Targeted Recruitment and Selection**

#### **Key Activities**

- (i) Identification of competent workforce from the pool of interns in MDCAs for confirmation in full employment.
- (ii) Branding the civil service as an employer of choice by amplifying employment value proposition.
- (iii) Sustaining merit-based recruitment processes as the bedrock of professional civil service.
- (iv) Adopting employee fast-track programme as a way to reach out to specific skill sets which may be lacking.
- (v) Adopting a competency-based selection processes instead of relying on educational qualifications as the primary indicator of merit.
- (vi) Developing attractive terms and conditions of employment for specific positions or professions to align to aspects of the employment value proposition, such as pay and job security, with the requirements of the job and the conditions of the broader labour market.
- (vii) Development of new separation strategies, including buyouts, to help transition out workers who cannot or who do not choose to change;

### **Strategy 2: *Deployment and Utilization of Skills within Employment***

**Key Activities:**

- (i) Matching skills to job requirements
- (ii) Embracing high performance work practices, such as team work, flex working, task discretion, mentoring, job rotation and the degree of internal flexibility to adapt job tasks to the skills of new hires.
- (iii) Ensuring opportunities for horizontal mobility-skill sets to be shared across institutions and vertical mobility-people with in-demand skill sets are organised in ways that allow them to develop, grow and put their skills to best use.
- (iv) Development of shared talent pools to ensure that hard-to-find skills are available, across the civil service.
- (v) Develop managerial and leadership competencies to drive innovation.

**Strategy 3: *Mainstreaming Knowledge Management, Research and Innovation*****Key Activities:**

- (i) Conduct a study to identify existing Knowledge Management gaps;
- (ii) Strengthening public-private partnerships through exchange and sharing know-how.
- (iii)

**3.8 Strategic Issue 5: Strengthening Institutional Framework**

**Objective:** To define, guide, protect, and hold accountable the merit system principles of public management and administration

**Strategy 1: *Establish Public Service Scholarship Council*****Key Activities**

- (i) Manage Public Service Government Scholarship Programmes;
- (ii) Transformation of the Civil Service Training Revolving Fund (TRF);
- (iii) Regulation and financing for training of all public servants;
- (iv) Liaise with public agencies to identify beneficiaries of the fund;
- (v) Maintain a database of all beneficiaries of government scholarships
- (vi) Design efficient fund administration strategies
- (vii) Maintain an system of ensuring fair administration of the fund
- (viii) Devise mechanisms for raising funds to expand the kitty including and not limited to agency contribution modalities
- (ix) Manage the Training Levies within public service.

**Strategy 2: *Creation of a Central Personnel Agency*****Key Activities:**

- (i) Conduct of Service-wide strategic workforce planning

- (ii) Provide support to MDCAs in the development of human capital plans
- (iii) Entrenching a merit-based agency specific human capital policies and strategies to help agencies achieve their strategic objectives.
- (iv) Maintenance of a data warehouse of skills and competencies available across government.
- (v) Creation of a database of best practices and data-driven results to reduce duplication and enhance efficiency among agencies.
- (vi) Development of a core set of human capital metrics for use by MDCAs in closing critical skills gaps.
- (vii) Facilitate HR professionals' ability to better monitor progress, measure results, and conduct data analyses.

## CHAPTER FIVE: OBSERVATIONS, CONCLUSION AND WAY FORWARD

### 4.0 OBSERVATIONS

The study team observed that for an all-inclusive process and to increase acceptability of the study findings, it is important to have broad based representation in the study team to be able to properly capture skill deficit areas.

The data analysed in this report and information was gathered through reading of working documents identified by the IATT and talking to HODs in the State Departments and Agencies. There is need to conduct interviews with stakeholders and players in the sector to gather additional gaps not captured.

#### **Health Sector**

The demand for health care services that are provided by the public sector is creating unprecedented pressures on health care systems. To mitigate these pressures, the sector needs personnel with the right skills and competence. Technology on the other hand has improved the management and practice of healthcare services and therefore there's need for employers retraining skilled workers to acquire the new skills e.g. Electronic Health Records (EHRs).

Emerging health care needs, the expansion of Health Information Technology and telemedicine will impact on the nature of skills demand in the sector: rising requirements of e-skills, clinical knowledge and the creation of new roles for medium and lower qualified professionals. Health Information Technology (HIT) has created massive shifts in how health care professionals and patients gather health and medical information to make decisions. HIT has the capacity to transform health care delivery, improve quality, decrease costs and reduce medical errors. Applying Health Information Technologies such as EHRs, telemedicine, mobile health applications, and electronic medical prescriptions is driving change in the way doctors, nurses, patients and other sector stakeholders interact.

### 4.1 CONCLUSION

The task team concluded that the reviewed secondary data is not adequate to provide current insights into scarce, rare and high priority skill gaps and, therefore, collection of primary data through a survey is necessary to be able to adequately address skills gaps in national government MDAs and county governments. This will in effect contribute enormously towards the support the commitment of the government to address skills gaps in all sectors of economy through the

development of a national skills master plan. Quite a good number of skills in the counties were fairly distributed in the housing sector.

## 4.2 WAY FORWARD

The study team recommends that a broad-based task team comprising national government, academia, state corporations, commissions, counties and private sector, religious groups' educational secretariats, professional groups, and the civil society needs to be constituted to spearhead the development of the public service skills master plan and a national master plan for scarce and high priority skills.

### **Manufacturing**

- (i) Industrial-led growth can be achieved by focusing on skills development for industry, improving the quality of infrastructure, and improving the business environment.
- (ii) Technical and vocational education and training colleges and universities should be improved and expanded.
- (iii) A lot of effort should be directed to emerging sectors that are experiencing skill shortages in oil, Gas, Minerals and the Blue Economy.
- (iv) Infrastructure development and equipping research, higher education and training institutions should be prioritized.

### **Health**

Links between educational institutions and the employment system should be enhanced to prepare entrants to the employment system for existing careers options and to properly respond to changing labour market needs. This also includes helping to establish the ethical conduct of technology application in healthcare practice. Further, the education system should ensure that the health care workers have the right knowledge, skills and competence they need to provide healthcare in the future.

### **Food Security**

- (i) The above information was gathered through reading of working documents identified by the IATT and talking to HODs in the State Departments and Agencies.
- (ii) There is need to do interviews with stakeholders and players in the sector to gather additional gaps not captured. This from particularly those practising agriculture.
- (iii) Basic competences (computer literacy, numeracy, entrepreneurship, communication, ethics & integrity etc) to be anchored in all specializations regardless of academic level.
- (iv) A total of eighty three (83) skill areas were identified by the counties.

## **Affordable Housing**

There is need for counties to include in their CIDPs skills which will help in delivering the “Big Four” Agenda specifically in Affordable Housing. The governments intend to build houses for its citizens in all counties cannot be achieved with gaps in the necessary skills. There is also the need to quantify the skills both at National and County Governments for the purpose of recruitment to fill the identified gaps.



## ANNEXES

### Annex 1: Implementation Plan – Development of a Skills Master Plan (National and County Level)

PRIORITY AREA	OBJECTIVES	ACTIVITIES	EXPECTED OUTPUTS	TIME FRAME	BUDGET (Kshs.)	LEAD ACTOR	Other Key Actors
Development of a Master Plan for high priority and scarce skills for the Public Service	Develop a framework for development and deployment of critical and scarce skills in the Public Service	(i) Validation of Skills Master Plan a. Inter-county stakeholder engagement b. Incorporation of stakeholder feedback c. Preparation of a draft report on Master plan for scarce and high priority skills in the public service d. Finalization of a Master Plan for Scarce and High Priority Skills in the Public Service	Validation reports on master plan for scarce and priority skills	March 2021	70M	MPS&G /COG/ KSG	PSC/NT/EAC Labour and CPSB/CASB
		(ii) Preparation of a Policy Paper on Closing Skills Gaps in the Civil Service	Cabinet memo	April, 2021			
		(iii) Publishing of Master Plan Scarce and High Priority Skills	Publications	May, 2021			
		(iv) Release of a Skills Master Plan for the Public Service	Circular	July, 2021			
		(v) Stakeholder sensitization & public communication	Sensitization report	September, 2021			
		(vi) Roll out Implementation of the Skills Master Plan for scarce and high priority skills	Report of roll out	October, 2021			
		(vii) Development of a training Manual for the Master Plan for scarce and high priority skills	Training Manual	November, 2021			
		(viii) Design of a training programme for the Skills Master Plan	Training guide	January, 2022			
		(ix) Implementation of a training programme on the Skills Master Plan	Training reports	March, 2022			
		(x) Development of Strategy for Redeployment of Scarce and High Priority Skills	Strategy for redeployment of scarce and high priority skills	April 30, 2022			
		(xi) Implementation of Strategy for redeployment of scarce and high priority skills	Status Report	June 30, 2022			
Total					70 M		

**Annex 2: Inter Agency Task Team****Members**

<b>S/NO.</b>	<b>NAME</b>	<b>Designation</b>	<b>Ministry/Department /Agency</b>
<b>Members</b>			
1.	Dr. Florence N.N Muinde	Director/HRD	State Department for Public Service
2.	Dr. Josephine Mwanzia	Director, AA	Kenya school of Government, Nairobi
3.	Ms. Jane W. J. Mwangi	Trainer	Kenya school of Government, Nairobi
4.	Mr. Jackson Alwangá	DD/HRM&D	State Department for Public Service
5.	Mr. Stephen W. Kakulu	DD/HRM&D	State Department for Public Service
6.	Mr. Francis M. Mutisya	DD/HRM&D	State Department for Public Service
7.	Mr. Nicholas Gakiha	DD/Industry	State Department for Industrialization
8.	Eng. Evans N Onchongá	Supt. Engineer	State Department for Public Works
9.	Ms. Grace Wairimu	AD/HRM&D	State Department for Aqua culture, Fisheries
10.	Mr. James O. Z. Libaako	PLDO	State Department for Livestock Development
11.	Mrs. Mary N. Kamau	AD/HRM&D	State Department Housing and Urban Devt.
12.	Ms. Carolyne Mage	HR Officer	Council of Governors
<b>Technical Support Team/Secretariat</b>			
13.	Mr. Obed M. Nyangena	Researcher	Kenya School of Government, Nairobi
14.	Ms. Sheila Chepng'etich	Intern/HRD	State Department for Public Service
15.	Mr. George K. Maina	Intern/HRD	State Department for Public Service
16.	Ms. Victoria Ngina	Intern/HRD	State Department for Public Service
17.	Mr. William A. Kairi	Intern/HRD	State Department for Public Service

## Annex 3: Scarce and High Priority Skills in County Government's "Big Four" Sectors

### 1. Manufacturing

County	Identified Priority Skills	Scarce/High
<b>001 Mombasa CG</b>	<ul style="list-style-type: none"> <li>Enterprises experts</li> <li>Ceramics experts</li> <li>Fisheries Officer</li> <li>Food and Drink Technologist</li> <li>Forestry scientist</li> <li>Geophysicist</li> <li>Horticulturist</li> <li>Industrial Development Officer</li> <li>Information Technology Manager</li> <li>Monitoring &amp; Evaluation Experts</li> <li>Metallurgists</li> <li>Mining engineers</li> <li>Motor Vehicle Assembly Line Machine Operators</li> <li>Soil scientists</li> <li>Statistical experts</li> <li>Planning experts</li> </ul>	Development
<b>002 Kwale CG</b>	<ul style="list-style-type: none"> <li>Agriculturists</li> <li>Animal Scientists</li> <li>Apiary Workers</li> <li>Ceramics experts</li> <li>Civil Engineer</li> <li>Food processing experts</li> <li>Forestry scientist</li> <li>Horticulturist</li> <li>Information Technology Specialists</li> <li>M&amp;E experts</li> <li>Management skills</li> <li>Metallurgists</li> <li>Mining engineer</li> <li>Negotiation skills for PPPs</li> <li>Precision Sawyer</li> <li>Natural and marine reserves management experts</li> <li>Soil scientist</li> <li>Tourist Officer</li> <li>Transport/Storage/Communications Business Manager</li> <li>Value chain addition experts</li> </ul>	Technology
<b>003 Kilifi CG</b>	<ul style="list-style-type: none"> <li>Administration Managers</li> <li>Agriculturists</li> </ul>	
	<ul style="list-style-type: none"> <li>Enterprise development officers</li> <li>Ceramics experts</li> <li>Civil Engineers</li> <li>Film production experts</li> <li>Finance Managers</li> <li>Fisheries Officer</li> <li>Forestry scientist</li> <li>Horticulturist</li> <li>Metallurgists</li> <li>Mining engineer</li> <li>Negotiation experts</li> <li>Pollution Safety and Health Inspectors</li> <li>Power Production Plant Operators</li> <li>Resource mobilization experts</li> <li>Soil scientist</li> <li>Tourist Officer</li> <li>Value chain addition experts in dairy, mango, chilli and honey</li> </ul>	
<b>004 Tana River CG</b>	<ul style="list-style-type: none"> <li>Accountants, Auditors and Tax Assessors</li> <li>Agriculturist</li> <li>Animal Scientist</li> <li>Apiary Workers</li> <li>Civil Engineers</li> <li>Finance Managers</li> <li>Fisheries Officers</li> <li>Forestry scientist</li> <li>Horticulturist</li> <li>Pharmaceutical and Toiletry Products Machine Operators</li> <li>Pollution Safety and Health Inspector</li> <li>Power Production Plant Operators</li> <li>Skilled farm, fishery, wildlife and related workers</li> <li>Soil scientist</li> <li>Value chain addition - packaging, filleting and branding;</li> <li>Veterinarian</li> <li>Wood Science</li> </ul>	
<b>005 Lamu CG</b>	<ul style="list-style-type: none"> <li>Agriculturist</li> <li>Enterprise development experts</li> <li>Civil Engineer</li> <li>Drilling Engineer</li> <li>Fisheries Officer</li> <li>Forestry scientist</li> </ul>	

	<ul style="list-style-type: none"> <li>• Handicraft Workers</li> <li>• Horticulturist</li> <li>• Industrial Development Officers</li> <li>• Information Technology Manager</li> <li>• Innovation promotion experts</li> <li>• Research, Planning and Development Manager</li> <li>• Soil scientist</li> <li>• Tourist Officer</li> <li>• Value chain addition expert</li> </ul>
<b>006 T/Taveta CG</b>	<ul style="list-style-type: none"> <li>• Building Trades Workers</li> <li>• Enterprises Development experts</li> <li>• Pollution Safety and Health Inspector</li> </ul>
<b>007 Garissa CG</b>	<ul style="list-style-type: none"> <li>• Agriculturist</li> <li>• Animal Scientist</li> <li>• Architects and Town Planners</li> <li>• Enterprises Development experts</li> <li>• Food Processing and Related Trades Workers</li> <li>• Forestry scientist</li> <li>• Horticulturist</li> <li>• Soil scientist</li> </ul>
<b>008 Wajir CG</b>	<ul style="list-style-type: none"> <li>• Animal Scientists</li> <li>• Enterprises Development experts</li> <li>• Food Processing and Related Trades Workers</li> <li>• Livestock Farmer</li> <li>• Veterinarian</li> </ul>
<b>009 Mandera CG</b>	<ul style="list-style-type: none"> <li>• Agriculturist</li> <li>• Enterprises Development experts</li> <li>• Civil Engineer</li> <li>• Forestry scientist</li> <li>• Geologists</li> <li>• Horticulturist</li> <li>• Hydrologist</li> <li>• Industrial Development Officers</li> <li>• Soil scientist</li> <li>• Veterinarians</li> </ul>
<b>010 Marsabit CG</b>	<ul style="list-style-type: none"> <li>• Agriculturist</li> <li>• Animal Scientist</li> <li>• Enterprises Development experts</li> <li>• Civil Engineer</li> <li>• Forestry scientist</li> <li>• Horticulturist</li> <li>• Soil scientist</li> </ul>
<b>011 Isiolo CG</b>	<ul style="list-style-type: none"> <li>• Animal Scientist</li> <li>• Enterprises Development</li> </ul>
	<ul style="list-style-type: none"> <li>experts</li> <li>• Forestry scientist</li> <li>• Horticulturist</li> <li>• Soil scientist</li> <li>• Veterinarian Agriculturist</li> </ul>
<b>012 Meru CG</b>	<ul style="list-style-type: none"> <li>• Building Trades Workers</li> <li>• Handicraft Workers</li> </ul>
<b>013 Tharaka-Nithi CG</b>	<ul style="list-style-type: none"> <li>• Agriculturist</li> <li>• Fisheries Officer</li> <li>• Forestry scientist</li> <li>• Horticulturist</li> <li>• Hydrologist</li> <li>• Pollution Safety and Health Inspector</li> <li>• Enterprise development officers</li> <li>• Soil scientist</li> <li>• Value chain addition experts</li> </ul>
<b>014 Embu CG</b>	<ul style="list-style-type: none"> <li>• Ceramics experts</li> <li>• Industrial Development Officers</li> <li>• Metallurgists</li> <li>• Mining engineer</li> <li>• Enterprise development officers</li> <li>• Value chain addition skills agriculture and industrial produce.</li> </ul>
<b>015 Kitui CG</b>	<ul style="list-style-type: none"> <li>• Ceramics experts</li> <li>• Forestry scientist</li> <li>• Metallurgists</li> <li>• Mining engineer</li> <li>• Value chain addition skills</li> </ul>
<b>016 Machakos CG</b>	<ul style="list-style-type: none"> <li>• Administration Managers</li> <li>• Agriculturist</li> <li>• Architects and Town Planners</li> <li>• Civil Engineer</li> <li>• Enterprises Development experts</li> <li>• Environmental management skills</li> <li>• Finance Manager</li> <li>• Fisheries Officer</li> <li>• Industrial Development Officer</li> <li>• Information Technology Manager</li> <li>• Livestock Farmer</li> <li>• Pollution Safety and Health Inspector</li> <li>• Surveyors and Cartographers</li> <li>• Transport/Storage/Communications Business Manager</li> <li>• Value chain addition experts</li> <li>• Veterinarian</li> </ul>
<b>017 Makueni CG</b>	<ul style="list-style-type: none"> <li>• Agriculturist</li> <li>• Building Trades Workers</li> </ul>

	<ul style="list-style-type: none"> <li>Enterprises Development experts</li> <li>Civil Engineer</li> <li>Fashion and Other Model</li> <li>Finance Manager</li> <li>Forestry scientist</li> <li>Horticulturist</li> <li>Industrial Development Officer</li> <li>Information Technology Manager</li> <li>Pollution Safety and Health Inspector</li> <li>Resource management</li> <li>Enterprise development officers</li> <li>Soil scientist</li> <li>Solar Equipment Fitters and Installers</li> <li>Supplies and Distribution Managers</li> <li>Tourist Officer</li> <li>Value chain addition experts</li> </ul>
<b>018 Nyandarua CG</b>	<ul style="list-style-type: none"> <li>Agriculturist</li> <li>Forestry scientist</li> <li>Horticulturist</li> <li>Innovative skills</li> <li>Soil scientist</li> <li>Value chain addition experts</li> </ul>
<b>019 Nyeri CG</b>	<ul style="list-style-type: none"> <li>Agriculturist</li> <li>Finance Manager</li> <li>Forestry scientist</li> <li>Horticulturist</li> <li>Industrial Development Officer</li> <li>Metallurgists</li> <li>Mining engineer</li> <li>Negotiation skills for PPPs to spur growth and development and woo expatriates in manufacturing</li> <li>Soil scientist</li> <li>Value chain addition for tea, coffee, meat, fruits and vegetables</li> </ul>
<b>020 Kirinyaga CG</b>	<ul style="list-style-type: none"> <li>Agriculturist</li> <li>Enterprises Development experts</li> <li>Forestry scientist</li> <li>Horticulturist</li> <li>Power Production Plant Operators</li> <li>Soil scientist</li> <li>Value chain addition</li> <li>Wood Science</li> </ul>

<b>021 Murang'a CG</b>	<ul style="list-style-type: none"> <li>Agriculturist</li> <li>Enterprises Development experts</li> <li>Ceramics</li> <li>Forestry scientist</li> <li>Horticulturist</li> <li>Power Production Plant Operators</li> <li>Soil scientist</li> <li>Wood Science</li> </ul>
<b>022 Kiambu CG</b>	<ul style="list-style-type: none"> <li>Agriculturist</li> <li>Animal Scientist</li> <li>Enterprises Development experts</li> <li>Chemical Engineers and Technologists</li> <li>Environmental management skills</li> <li>Food and Drink Technologist</li> <li>Forestry scientist</li> <li>Handicraft Workers</li> <li>Horticulturist</li> <li>Industrial Development Officer</li> <li>Machinery mechanics and fitters</li> <li>Metal Melters, Casters And Rolling Mill Operators</li> <li>Motor Vehicle Assembly Line Machine Operator</li> <li>Pharmaceutical and Toiletry Products Machine Operators</li> <li>Pollution Safety and Health Inspector</li> <li>Soil scientist</li> <li>Upholsterers, pelt, leather and shoemaking trades workers</li> <li>Value chain addition skills</li> </ul>
<b>023 Turkana CG</b>	<ul style="list-style-type: none"> <li>Administration Managers</li> <li>Agriculturist</li> <li>Architects and Town Planners</li> <li>Enterprises Development experts</li> <li>Forestry scientist</li> <li>Horticulturist</li> <li>Industrial Development Officer</li> <li>Innovation skills development for industrialization</li> <li>M&amp;E</li> <li>Management skills</li> <li>Pollution Safety and Health Inspector</li> <li>Power Production Plant Operators</li> <li>Soil scientist</li> <li>Solar Equipment Fitters and</li> </ul>

	<ul style="list-style-type: none"> <li>• Installers</li> <li>• Statistical, and Planning Officials</li> <li>• Supplies and Distribution Manager</li> <li>• Veterinarian</li> </ul>
<b>024 West Pokot CG</b>	<ul style="list-style-type: none"> <li>• Agriculturist</li> <li>• Animal Scientist</li> <li>• Forestry scientist</li> <li>• Horticulturist</li> <li>• Negotiation skills on engaging Tullow Oil cooperation and wooing other investors.</li> <li>• Resource management of mineral/ natural resources database</li> <li>• Resource mobilisation</li> <li>• Soil scientist</li> <li>• Surveyors and Cartographers</li> <li>• Value chain addition for Milk, Wool, Mangoes, Sunflower, Aloe vera and other products</li> <li>• Veterinarian</li> </ul>
<b>025 Samburu CG</b>	<ul style="list-style-type: none"> <li>• Abattoir Attendants</li> <li>• Agriculturist</li> <li>• Enterprises Development experts</li> <li>• Ceramics</li> <li>• Forestry scientist</li> <li>• Handicraft Workers</li> <li>• Horticulturist</li> <li>• Industrial Development Officer</li> <li>• Innovation skills</li> <li>• Metallurgists</li> <li>• Mining engineer</li> <li>• Power Production Plant Operators</li> <li>• Soil scientist</li> <li>• Value chain addition skills</li> <li>• Wood Science</li> </ul>
<b>026 Trans-Nzoia CG</b>	<ul style="list-style-type: none"> <li>• Enterprises Development experts</li> <li>• Construction skills</li> <li>• Power Production Plant Operators</li> <li>• Transport/ Storage/ Communications Business Manager</li> <li>• Civil Engineer</li> </ul>
<b>027 Uasin-Gishu CG</b>	<ul style="list-style-type: none"> <li>• Agriculturist</li> <li>• Food and Drink Technologist</li> <li>• Forestry scientist</li> <li>• Horticulturist</li> <li>• Precision lawyer</li> <li>• Resource management</li> </ul>

	<ul style="list-style-type: none"> <li>• Soil scientist</li> <li>• Value chain addition</li> </ul>
<b>028 E/Marakwet CG</b>	<ul style="list-style-type: none"> <li>• Agriculturist</li> <li>• Animal Scientist</li> <li>• Apiary Worker</li> <li>• Enterprises Development experts</li> <li>• Ceramics</li> <li>• Fisheries Officer</li> <li>• Forestry scientist</li> <li>• Horticulturist</li> <li>• Precision Sawyer</li> <li>• Soil scientist</li> <li>• Supplies and Distribution Manager</li> <li>• Value chain addition - coffee, groundnut, green grams, mango, milk and honey</li> <li>• Veterinarian</li> </ul>
<b>029 Nandi CG</b>	<ul style="list-style-type: none"> <li>• Enterprises Development experts</li> <li>• Construction skills</li> <li>• Engineering skills</li> <li>• Research, Planning and Development Manager</li> </ul>
<b>030 Baringo CG</b>	<ul style="list-style-type: none"> <li>• Ceramics</li> <li>• Civil Engineer</li> <li>• Geologists</li> <li>• Metallurgists</li> <li>• Mining engineer</li> <li>• Transport/ Storage/Communications Business Manager</li> </ul>
<b>031 Laikipia CG</b>	<ul style="list-style-type: none"> <li>• Ceramics</li> <li>• Metallurgists</li> <li>• Mining engineer</li> </ul>
<b>032 Nakuru CG</b>	<ul style="list-style-type: none"> <li>• Agriculturist</li> <li>• Animal Scientist</li> <li>• Food and Drink Technologist</li> <li>• Forestry scientist</li> <li>• Horticulturist</li> <li>• Soil scientist</li> <li>• Solar Equipment Fitters and Installers</li> <li>• Weights and Measures Inspector</li> </ul>
<b>033 Narok CG</b>	<ul style="list-style-type: none"> <li>• Administration Manager</li> <li>• Civil Engineer</li> <li>• Hydrologist</li> <li>• Tourist Officer</li> </ul>
<b>034 Kajiado CG</b>	<ul style="list-style-type: none"> <li>• Animal Scientist</li> <li>• Construction skills</li> <li>• Enterprises Development experts</li> </ul>

	<ul style="list-style-type: none"> <li>• Environmental management skills</li> <li>• Hydrologist</li> <li>• Industrial Development Officer</li> <li>• Pollution Safety and Health Inspectors</li> <li>• Surveyors and Cartographers</li> <li>• Tourist Officer</li> <li>• Veterinarian</li> </ul>
<b>035 Kericho CG</b>	<ul style="list-style-type: none"> <li>• Enterprises Development experts</li> <li>• Co-operative Officer</li> <li>• Weights and Measures Inspector</li> </ul>
<b>036 Bomet CG</b>	<ul style="list-style-type: none"> <li>• Enterprises Development experts</li> <li>• Power Production Plant Operators</li> <li>• Tourist Officer</li> </ul>
<b>037 Kakamega CG</b>	<ul style="list-style-type: none"> <li>• Agriculturist</li> <li>• Enterprises Development experts</li> <li>• Ceramics</li> <li>• Civil Engineer</li> <li>• Food Processing and Related Trades Workers</li> <li>• Forestry scientist</li> <li>• Horticulturist</li> <li>• M&amp;E</li> <li>• Metallurgists</li> <li>• Mining engineer</li> <li>• Negotiation skills for PPPs</li> <li>• Power Production Plant Operators</li> <li>• Relevant skills for people with disabilities</li> <li>• Soil scientist</li> <li>• Supplies and Distribution Manager</li> <li>• Surveyors and Cartographers</li> <li>• Value chain addition</li> </ul>
<b>038 Vihiga CG</b>	<ul style="list-style-type: none"> <li>• Agriculturist</li> <li>• Food Processing and Related Trades Workers</li> <li>• Forestry scientist</li> <li>• Horticulturist</li> <li>• Soil scientist</li> <li>• Surveyors and Cartographers</li> </ul>
<b>039 Bungoma CG</b>	<ul style="list-style-type: none"> <li>• Food Processing and Related Trades Workers</li> <li>• Supplies and Distribution Manager</li> </ul>
<b>040 Busia CG</b>	<ul style="list-style-type: none"> <li>• Supplies and Distribution Manager</li> </ul>

	<ul style="list-style-type: none"> <li>• Weights and Measures Inspector</li> </ul>
<b>041 Siaya CG</b>	<ul style="list-style-type: none"> <li>• Food Processing and Related Trades Workers</li> <li>• Civil Engineer</li> <li>• Supplies and Distribution Manager</li> </ul>
<b>042 Kisumu CG</b>	<ul style="list-style-type: none"> <li>• Food and Drink Technologist</li> <li>• Food Processing and Related Trades Workers</li> <li>• Supplies and Distribution Manager</li> </ul>
<b>043 Homa Bay CG</b>	<ul style="list-style-type: none"> <li>• Food Processing and Related Trades Workers</li> <li>• Enterprise development officers</li> <li>• Supplies and Distribution Manager</li> </ul>
<b>044 Migori CG</b>	<ul style="list-style-type: none"> <li>• Food Processing and Related Trades Workers</li> <li>• Supplies and Distribution Manager</li> </ul>
<b>045 Kisii CG</b>	<ul style="list-style-type: none"> <li>• Agriculturist</li> <li>• Ceramics</li> <li>• Food Processing and Related Trades Workers</li> <li>• Forestry scientist</li> <li>• Horticulturist</li> <li>• Metallurgists</li> <li>• Mining engineer</li> <li>• Enterprise development officers</li> <li>• Soil scientist</li> <li>• Supplies and Distribution Manager</li> </ul>
<b>046 Nyamira CG</b>	<ul style="list-style-type: none"> <li>• Agriculturist</li> <li>• Animal Scientist</li> <li>• Forestry scientist</li> <li>• Horticulturist</li> <li>• Enterprise development officers</li> <li>• Soil scientist</li> <li>• Supplies and Distribution Manager</li> </ul>

<b>047 CG</b>	<b>Nairobi</b>	<ul style="list-style-type: none"> <li>• Administration Manager</li> <li>• Business professionals</li> <li>• Chemical-processing plant and chemical products machine operators</li> <li>• Civil Engineer</li> <li>• Construction skills</li> <li>• Finance Manager</li> <li>• Fisheries Officer</li> <li>• Food and Drink Technologist</li> <li>• Forest Scientist</li> <li>• Information Technology Manager</li> <li>• Innovation skills</li> <li>• Management skills</li> <li>• Motor Vehicle Assembly Line Machine Operator</li> <li>• Relevant skills for people with disabilities</li> <li>• Resource mobilization</li> <li>• Enterprise development officers</li> <li>• Statistical, and Planning Officials</li> <li>• Supplies and Distribution Manager</li> <li>• Value chain addition</li> <li>• Veterinarian</li> </ul>
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## 2. Food and Nutrition Security

County	High Priority Skills
<b>001 Mombasa</b>	Animal health and production officers Ward livestock extension officers
<b>002 Kwale</b>	Post-harvest handling Crops and Livestock husbandry Pests and diseases control Hydrology Weight and measures GIS Cartography
<b>003 Kilifi</b>	Disaster preparedness and management Risk analysis Lab technicians Animal production officers Weights and measures
<b>004 Tana River</b>	Engineers Agriculture and rural development Disaster and conflict management Animal health Pests and diseases control
<b>005 Lamu</b>	Agriculture and irrigation Disaster and risk management
<b>006 Taita</b>	GIS Specialists

<b>Taveta</b>	Agriculture and Livestock Assistants (Diploma Holders) Animal Health Assistants (Diploma Holders) Weights and Measures services
<b>007 Garissa County</b>	Process and preserve agricultural and dairy products Environmentalists and natural resource management and conservationist such as soil and water Irrigation Engineers, Fish specialist and range management specialist GIS analysts
<b>008 Wajir County</b>	Animal husbandry Business skills and entrepreneurial training Disaster management Feed production and storage
<b>009 Mandera County</b>	Conserve environment Automated information systems Range resource use and conservation



	Crop husbandry and agroforestry Ward extension services Fisheries Officer Natural Resources officer Cartographers Indigenous poultry keeping and poultry health
<b>010 Marsabit</b>	Cartographers Artisans Research Statistics Disaster management Entrepreneurial skills Crop and animal husbandry
<b>011 Isiolo County</b>	Disaster and risk reduction Business entrepreneurial skills Crop husbandry training, Post-harvest handling and storage On-farm value addition Apiculture Jua kali artisan
<b>012 Meru County</b>	Weights and Measures Officers Diagnose diseases and/ or monitor treatment
<b>013 Tharaka-Nithi CG</b>	Training and capacity building on water harvesting and management Value addition for crop, livestock products as well as aqua-culture & river line capture skills. <ul style="list-style-type: none"> <li>Value addition for banana, coffee and tea processing</li> <li>Jua kali artisanship skills for proposed industrial parks at Marimanti and Chuka</li> </ul>
<b>014 Embu CG</b>	<ul style="list-style-type: none"> <li>Artisanship</li> <li>Value addition skills agriculture and industrial produce.</li> </ul>
<b>015 Kitui CG</b>	<ul style="list-style-type: none"> <li>Relevant value-addition skills for Tuber crops (cassava and sweet potatoes) play a significant role as food security crops in the county but could even be developed into industrial crops through intensified production and promotion of utilization of their value-added products.</li> <li>Fruit pulp industries and dried mango strips for value addition</li> <li>Relevant skills for the cottage industry</li> </ul>
<b>016 Machakos CG</b>	<ul style="list-style-type: none"> <li>Agriculture engineering skills</li> <li>Irrigation technologists</li> <li>Horticulture experts</li> <li>Soil and water conservation</li> <li>Food quality and safety expert</li> <li>Range management</li> <li>Livestock production</li> <li>Apiculture production</li> <li>Environment management</li> </ul>
<b>017 Makueni CG</b>	<ul style="list-style-type: none"> <li>Dairy and livestock value chain addition skills</li> <li>Monitoring, evaluation and reporting</li> </ul>
<b>018 Nyandarua CG</b>	<ul style="list-style-type: none"> <li>Geological mapping skills to determine whether there is mineral potential and if any is found, to consider inviting investors to concession and explore the viability of any commercial mining.</li> <li>Value addition for agro-forestry &amp; agro processing</li> <li>Innovative skills through installation of incubation hubs for SME's.</li> <li>Risk management</li> <li>Grant proposal writing</li> <li>Monitoring and Evaluation</li> </ul>
<b>019 Nyeri CG</b>	<ul style="list-style-type: none"> <li>Relevant skills for agro-processing, leather and textiles</li> <li>Value addition for tea, coffee, meat, fruits and vegetables</li> <li>Risk assessment in project implementation.</li> <li>Monitoring and evaluation.</li> </ul>
<b>020 Kirinyaga CG</b>	<ul style="list-style-type: none"> <li>Value addition and agro-processing and tinning industries given the high production of coffee, tomatoes, sugarcane, mangoes, watermelons, bananas, green grams and dairy.</li> <li>Revitalization of entrepreneurial skill culture among the local communities</li> </ul>
<b>021 Murang'a CG</b>	<ul style="list-style-type: none"> <li>Relevant skills for agro based industries, especially mangoes, bananas and milk processing factories.</li> <li>Industrial and entrepreneurial skills.</li> <li>Advanced modern skills in Aquaculture.</li> </ul>
<b>022 Kiambu CG</b>	<ul style="list-style-type: none"> <li>Entrepreneurial skills to start new factories for low cost animal feeds, value addition for agricultural products such as pineapple, dairy, hides, coffee, fish among other activities.</li> <li>Tea factories and coffee industries</li> </ul>

	are real danger to the environment because of disposing effluents into air and the rivers in the county.
	· Relevant skills for the Bata Shoe Factory which is the country's major producer of leather products
	· Relevant skills for:
	-Bakeries
	-Chemicals & Rubber Industries
	-Cereals and nuts
<b>023 Turkana CG</b>	· Entrepreneurship skills
	· Managerial skills
	· Water resource management skills
	· skills in crop production and marketing
	· skills on weights and measures
	· Research methods
	· M&E
<b>024 West Pokot CG</b>	· Value addition to Milk, Wool, Mangoes, Sunflower, Aloe vera and other products from the county
	· Relevant skills for agro-processing
	· Geo-spatial mapping of mineral resources skills including sand harvesting and exploration of petroleum.
<b>025 Samburu CG</b>	· Relevant skills for establishment of a tannery at Nomotio farm and a modern abattoir.
	· Handicraft skills for the beadwork and leather treatment industry
	· Value addition skills for agro industries
	· Innovation skills development for industrialization
<b>026 Trans-Nzoia CG</b>	· Disaster Management Personnel to curb the occurrence of more frequent and severe droughts, more and frequent floods and increased prevalence of malaria
	· Agricultural, Livestock and Fisheries Personnel: Irrigation engineers, Livestock extension officers, Agricultural engineers
<b>027 Uasin-Gishu CG</b>	· Agricultural Sector Personnel: -Livestock Production Officers
	- soil fertility specialists
<b>028 Elgeyo-Marakwet CG</b>	· Environmental Degradation skills. To sensitize on the need to conserve the environment
<b>029 Nandi CG</b>	· Agriculture, livestock and fisheries: livestock production skills, animal health skills, extension coordination
	skills
	· Land, environment and natural resources: physical planning, engineering skills
	· Lands, Environment and Natural Resources
<b>030 Baringo CG</b>	· Disaster Management skills: Drought conditions occur frequently in the county causing livestock deaths and loss of farm produce
	· Peace keeping skills; there is need for mediators to solve the tribal clashes as a result of cattle rustling in the county
	· Environmental Degradation conservation skills. One of the greatest challenges facing the county is environmental degradation, including deforestation, desertification, pollution and climate change
<b>031 Laikipia CG</b>	· Nutritionists
	· Fisheries and veterinary services
	· Disaster Management Officers
<b>032 Nakuru CG</b>	· Food Production skills Agribusiness Entrepreneurship
<b>033 Narok CG</b>	· Agribusiness and entrepreneurial skills
	Irrigation technology
	Horticulture expert
	Livestock production
	Range management
	Animal Health technician
	Environmental expert
	Agriculture production
<b>034 Kajado CG</b>	Skills in agriculture and fisheries: livestock officer, crops officer, mechanization extension officers, field supervisors
	· Malnutrition control skills
	· Research and Development
<b>035 Kericho CG</b>	Weights And Measures Skills
	Livestock Production
	Animal Health technician
	Horticulture expert
<b>036 Bomet CG</b>	Fisheries and Forestry Officers
<b>037 Kakamega CG</b>	Engineers i.e. mechanical engineers, agriculture engineers
	Land Valuers

	Extension Officers
	Research and Development specialists
<b>038 Vihiga CG</b>	Livestock and Veterinary Specialists
	Poultry health specialists
	Food production sector specialists
	Meat Inspectors
	Agricultural Engineers
<b>039 Bungoma CG</b>	Livestock and Veterinary Personnel
	Poultry health specialists
	Food production sector specialists
	Meat Inspectors
	Agricultural Engineering
<b>040 Busia CG</b>	Agriculture engineering
	Aquaculture technician
	Agribusiness and entrepreneurial skills
	Agriculture production
	Disaster and Risk management
	Apiculture production
	Livestock insurance expert
	Livestock disease surveillance
	Hides and skin expert
<b>041 Siaya CG</b>	Livestock and Veterinary Personnel
	Plant operators
	Poultry health specialists
	Food production sector specialists
	Meat Inspectors
	Agricultural Engineer
<b>042 Kisumu CG</b>	Crop and Animal Diseases Specialists
	Poultry health specialists
	Food production sector specialists
	Agricultural Engineers
	Meat Inspectors
	Livestock Health Specialists
	Ichthyologists (fish specialists)
<b>043 Homa Bay CG</b>	Crop and Animal Diseases Specialists
	Poultry health specialists
	Food production sector specialists
	Agricultural Engineers
	Meat Inspectors
	Livestock Health Specialists
<b>044 Migori CG</b>	Agricultural Engineers
	Food production sector specialists
	Meat Inspectors
	Poultry health specialists
<b>045 Kisii CG</b>	Agricultural Engineers
	Food production sector specialists
	Horticulturists
	Livestock and Veterinary Personnel
	Meat Inspectors
	Poultry health specialists
<b>046 Nyamira CG</b>	Agricultural Engineers
	Crop Production Specialists
	Livestock and Veterinary Personnel
	Meat Inspectors
	Poultry health specialists
<b>047 Nairobi City CG</b>	Urban and peri-urban Agriculture technologist
	Horticulture production
	Food quality and safety expert
	Livestock production
	Veterinary surgeon
	Green house technology
	Agribusiness and entrepreneurial skills
	Environmental expert
	Forestry technologist

## Food and Nutrition Security

County	Identified high priority and rare skills	
<b>001 Mombasa County</b>	<ul style="list-style-type: none"> <li>Construction management officers</li> <li>Urban /Regional Planners</li> <li>Physical Planners</li> <li>Geomatics surveyors</li> <li>Land surveyors</li> <li>Hydrographic surveyors</li> <li>Real estate managers</li> <li>Urban designer</li> <li>Land surveyors</li> <li>Civil engineers</li> <li>Artisans</li> <li>Civil, electrical and mechanical engineers</li> </ul>	<ul style="list-style-type: none"> <li>Artisans</li> </ul>
<b>002 Kwale County</b>	<ul style="list-style-type: none"> <li>Urban /Regional Planners</li> <li>GIS analysts</li> <li>Physical Planners</li> <li>Project managers</li> <li>Land surveyors</li> </ul>	
<b>003 Kilifi County</b>	<ul style="list-style-type: none"> <li>Urban developers</li> <li>Physical/regional planners</li> <li>Land surveyors</li> <li>Hydrographic surveyors</li> <li>GIS analysts</li> <li>Construction Management Experts</li> </ul>	
<b>004 Tana River county</b>	<ul style="list-style-type: none"> <li>Land Surveyors</li> <li>Physical Planners</li> <li>GIS analysts</li> </ul>	
<b>005 Lamu county</b>	<ul style="list-style-type: none"> <li>Urban /Regional developers</li> <li>Physical Planners</li> <li>Project managers</li> <li>Construction surveyors (building surveyors, geomatics and land surveyors, hydrographic surveyors, quantity surveyors)</li> <li>GIS specialists</li> <li>Artisans</li> </ul>	
<b>006 Taita Taveta</b>	<ul style="list-style-type: none"> <li>Land Surveyors</li> <li>Cartographers</li> <li>GIS Specialists</li> <li>Structural engineers</li> <li>Physical planners</li> </ul>	
<b>007 Garissa County</b>	<ul style="list-style-type: none"> <li>Artisans</li> <li>Land surveyors</li> <li>GIS analysts</li> <li>Project managers</li> <li>Civil engineers</li> </ul>	
<b>008 Wajir County</b>	<ul style="list-style-type: none"> <li>Urban /Regional Planners</li> <li>Physical Planners</li> <li>Cartographers</li> <li>GIS specialists</li> </ul>	
<b>009 Mandera County</b>	<ul style="list-style-type: none"> <li>Cartographers</li> <li>Civil engineers</li> <li>Quantity surveyors</li> <li>Artisans</li> <li>Physical planners</li> </ul>	
<b>010 Marsabit County</b>	<ul style="list-style-type: none"> <li>Cartographers</li> <li>Artisans i.e. plumbers, electricians, masons and painters</li> <li>Quantity surveyors</li> <li>Physical planners</li> </ul>	
<b>011 Isiolo County</b>	<ul style="list-style-type: none"> <li>Land valuers</li> <li>Land surveyors</li> <li>Jua kali artisans</li> <li>GIS assistants</li> </ul>	
<b>012 Meru County</b>	<ul style="list-style-type: none"> <li>Physical Planners</li> <li>Land Economists</li> <li>Cartographers</li> <li>Urban developers</li> <li>GIS assistants</li> <li>Building surveyors</li> <li>Artisans</li> </ul>	
<b>013 Tharaka Nithi County</b>	<ul style="list-style-type: none"> <li>Jua kali Artisans i.e. plumbers, electricians, masons and painters</li> <li>Cartographers</li> <li>Land economists</li> <li>Project managers</li> <li>Physical planners</li> </ul>	
<b>014 Embu County</b>	<ul style="list-style-type: none"> <li>Housing officers(Economists, Statisticians, Real Estate/Land Economists/Valuers, Construction Management Experts and Environmentalists)</li> <li>Artisans i.e. plumbers, electricians, masons and painters</li> <li>Project managers</li> </ul>	
<b>015 Kitui County</b>	<ul style="list-style-type: none"> <li>Construction surveyors (building surveyors, geomatics and land surveyors, hydrographic surveyors, quantity surveyors, engineering surveyor)</li> <li>GIS analysts</li> </ul>	
<b>016 Machakos County</b>	<ul style="list-style-type: none"> <li>Building Technologists</li> <li>Artisans i.e. plumbers, electricians, masons and painters</li> <li>Project managers</li> <li>GIS analysts</li> <li>Construction Management Experts</li> </ul>	
<b>017 Makueni County</b>	<ul style="list-style-type: none"> <li>Spatial planners</li> <li>Urban developers</li> <li>GIS specialists</li> </ul>	

	<ul style="list-style-type: none"> <li>• Land surveyors</li> </ul>
<b>018 Nyandarua County</b>	<ul style="list-style-type: none"> <li>• GIS specialists</li> <li>• Land surveyors</li> <li>• Physical planners</li> <li>• Building service engineers</li> </ul>
<b>019 Nyeri County</b>	<ul style="list-style-type: none"> <li>• Physical planners</li> <li>• GIS analysts</li> <li>• Land surveyors</li> <li>• Project managers</li> </ul>
<b>020 Kirinyaga County</b>	<ul style="list-style-type: none"> <li>• GIS analysts</li> <li>• Urban developers</li> <li>• Land surveyors</li> <li>• Land economists</li> </ul>
<b>021 Murang'a County</b>	<ul style="list-style-type: none"> <li>• Land surveyors</li> <li>• Land economists</li> <li>• GIS analysts</li> <li>• Quantity surveyors</li> </ul>
<b>022 Kiambu County</b>	<ul style="list-style-type: none"> <li>• GIS assistants</li> <li>• Land Economists/Valuers,</li> <li>• Urban /Regional Planners</li> <li>• Physical Planners</li> <li>• Real estate managers</li> </ul>
<b>023 Turkana County</b>	<ul style="list-style-type: none"> <li>• Construction management officers</li> <li>• Physical planners</li> <li>• Quantity surveyors</li> <li>• Land economists</li> <li>• GIS Analysts</li> </ul>
<b>024 West Pokot County</b>	<ul style="list-style-type: none"> <li>• Physical planners</li> <li>• GIS specialists</li> <li>• Land economists</li> </ul>
<b>025 Samburu County</b>	<ul style="list-style-type: none"> <li>• Artisans</li> <li>• Quantity surveyors</li> <li>• Physical planners</li> <li>• Mechanical engineers</li> <li>• Civil engineers</li> </ul>
<b>026 Trans-Nzoia CG</b>	<ul style="list-style-type: none"> <li>• GIS analysts</li> <li>• Land Surveyors</li> <li>• Land policy experts</li> <li>• Industrial zoning specialists</li> <li>• Electrical engineers</li> </ul>
<b>027 Uasin-Gishu CG</b>	<ul style="list-style-type: none"> <li>• Urban Developers</li> <li>• Project managers</li> <li>• Urban /Regional Planners</li> <li>• Physical Planners</li> <li>• Real estate managers</li> <li>• Land economists</li> <li>• Civil engineers</li> <li>• Statisticians</li> </ul>
<b>028 Elgeyo-Marakwet CG</b>	<ul style="list-style-type: none"> <li>• Construction managers</li> <li>• Civil engineers</li> <li>• Cartographers</li> <li>• Urban /Regional Planners</li> <li>• Physical Planners</li> <li>• Land economists</li> <li>• Land policy experts</li> </ul>
<b>029 Nandi CG</b>	<ul style="list-style-type: none"> <li>• Civil engineers</li> <li>• Cartographers</li> <li>• Structural engineers</li> <li>• Land economists</li> <li>• Landscape architect</li> </ul>
<b>030 Baringo CG</b>	<ul style="list-style-type: none"> <li>• Project managers</li> <li>• Land Economists/Valuers,</li> <li>• Land surveyors</li> <li>• Quantity surveyors</li> </ul>
<b>031 Laikipia CG</b>	<ul style="list-style-type: none"> <li>• GIS analysts</li> <li>• Structural engineers</li> <li>• Mechanical Engineers</li> <li>• Electrical Engineers,</li> <li>• Land surveyors</li> <li>• Quantity surveyors</li> </ul>
<b>032 Nakuru CG</b>	<ul style="list-style-type: none"> <li>• Project managers</li> <li>• Urban /Regional Planners</li> <li>• Land economists</li> <li>• Industrial architect</li> <li>• Urban designer</li> <li>• Hydrographic surveyors</li> <li>• Civil engineers</li> <li>• Artisans</li> </ul>
<b>033 Narok CG</b>	<ul style="list-style-type: none"> <li>• GIS analysts</li> <li>• Physical Planners</li> <li>• Geomatic surveyors</li> <li>• Land surveyors</li> <li>• Project managers</li> <li>• Land Economists/Valuers</li> </ul>
<b>034 Kajiado CG</b>	<ul style="list-style-type: none"> <li>• Project managers</li> <li>• Urban /Regional Planners</li> <li>• Physical Planners</li> <li>• Land surveyors</li> <li>• Land Economists/Valuers</li> </ul>
<b>035 Kericho CG</b>	<ul style="list-style-type: none"> <li>• Cartographer</li> <li>• Land surveyors</li> <li>• Physical planners</li> <li>• Urban developers</li> <li>• IT specialists</li> </ul>
<b>036 Bomet CG</b>	<ul style="list-style-type: none"> <li>• Project managers</li> <li>• GIS analysts</li> <li>• Urban /Regional Planners</li> <li>• Land economists</li> <li>• Physical planners</li> </ul>
<b>037 Kakamega CG</b>	<ul style="list-style-type: none"> <li>• GIS analysts</li> <li>• Project managers</li> <li>• Regional Planners</li> </ul>

	<ul style="list-style-type: none"> <li>Quantity surveyors</li> <li>Land economists</li> <li>Urban developers</li> </ul>
<b>038 Vihiga County</b>	<ul style="list-style-type: none"> <li>Land Economists</li> <li>Physical Planners</li> <li>Land surveyors</li> <li>GIS assistants</li> </ul>
<b>039 Bungoma County</b>	<ul style="list-style-type: none"> <li>Physical planners</li> <li>GIS assistants</li> <li>land surveyors</li> </ul>
<b>040 Busia County</b>	<ul style="list-style-type: none"> <li>Land Economists/Valuers</li> <li>Physical Planners</li> <li>GIS assistants</li> <li>Urban developers</li> <li>Artisans</li> <li>Civil engineers</li> <li>Mechanical/electrical engineers</li> <li>Land surveyors</li> <li>Quantity surveyors</li> </ul>
<b>041 Siaya County</b>	<ul style="list-style-type: none"> <li>Building inspectors</li> <li>GIS assistants</li> <li>Physical planners</li> </ul>
<b>042 Kisumu County</b>	<ul style="list-style-type: none"> <li>Urban /Regional Planners</li> <li>Artisans i.e. plumbers, electricians, masons and painters</li> <li>land surveyors</li> <li>hydrographic surveyors</li> <li>Cartographers</li> <li>Physical planners</li> <li>Structural engineers</li> </ul>
<b>043</b>	<ul style="list-style-type: none"> <li>Artisans</li> </ul>
<b>Homabay County</b>	<ul style="list-style-type: none"> <li>land surveyors</li> <li>quantity surveyors</li> <li>Cartographers</li> <li>GIS assistants</li> </ul>
<b>044 Migori County</b>	<ul style="list-style-type: none"> <li>Physical Planners</li> <li>GIS assistants</li> <li>Civil engineers</li> <li>Electrical engineers</li> <li>mechanical engineers</li> </ul>
<b>045 Kisii County</b>	<ul style="list-style-type: none"> <li>Cartographers</li> <li>Building technologists</li> <li>Building inspectors</li> <li>GIS assistants</li> </ul>
<b>046 Nyamira County</b>	<ul style="list-style-type: none"> <li>Physical planners</li> <li>GIS assistants</li> <li>Artisans</li> <li>Land surveyors</li> <li>Urban developers</li> </ul>
<b>047 Nairobi County</b>	<ul style="list-style-type: none"> <li>Real estate managers</li> <li>Land surveyors</li> <li>Building surveyors</li> <li>Building Inspector</li> <li>Real Estate/Land Economists/Valuers</li> <li>Physical and urban development planners</li> <li>GIS assistants</li> <li>Artisans</li> <li>Technicians</li> <li>Commercial architect</li> <li>Structural engineers</li> </ul>

### 3. Universal Health

County Integrated Development Plan	Identified high priority and rare skills
<b>001 Mombasa County</b>	<ul style="list-style-type: none"> <li>✓ Health policy communication skills</li> <li>✓ Dental Technology skills</li> <li>✓ Lab. Technology skills</li> <li>✓ Plaster Technology skills</li> <li>✓ Monitoring and evaluation skills</li> <li>✓ Information management expertise</li> <li>✓ Stakeholder engagement management skills</li> <li>✓ Public health specialists</li> <li>✓ Biostatisticians</li> <li>✓ Epidemiological skills</li> <li>✓ Health communication skills</li> <li>✓ Community Health Nursing skills</li> </ul>

<ul style="list-style-type: none"> <li>✓ Critical Care Nursing skills</li> <li>✓ Critical Care Paediatric Nursing skills</li> <li>✓ Nephrology skills</li> <li>✓ Nephrology nursing skills</li> <li>✓ Social health workers</li> <li>✓ Quality Assurance Specialists</li> <li>✓ Medical engineering skills</li> <li>✓ Surgical specialists</li> <li>✓ Obstetrics skills</li> <li>✓ Gynaecology skills</li> <li>✓ Neurosurgery skills</li> <li>✓ Orthopaedic surgery skills</li> <li>✓ Plastic surgery skills</li> <li>✓ Cardiothoracic surgery skills</li> <li>✓ Paediatric surgery skills</li> <li>✓ Oral maxillofacial surgery skills</li> <li>✓ Neo-surgical skills</li> <li>✓ Ophthalmologists</li> <li>✓ Diabetic specialists</li> <li>✓ Cardiac specialist</li> <li>✓ Psychiatry skills</li> <li>✓ Urology skills</li> </ul>
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	<ul style="list-style-type: none"> <li>✓ Dermatology skills</li> <li>✓ Respiratory and infectious disease specialists</li> <li>✓ Paediatric subspecialists</li> <li>✓ Medical laboratory technologists</li> <li>✓ Pathology skills</li> <li>✓ Radiology skills</li> <li>✓ Hospice Palliative Care Nursing skills</li> <li>✓ Medical-Surgical Nursing skills</li> <li>✓ Nephrology Nursing skills</li> <li>✓ Neuroscience Nursing skills</li> <li>✓ Occupational Health Nursing skills</li> <li>✓ Cardiovascular nurse skills</li> <li>✓ Oncology Nursing skills</li> <li>✓ Orthopaedic Nursing skills</li> <li>✓ Paraesthesia Nursing skills</li> <li>✓ Perinatal Nursing skills</li> <li>✓ Perioperative Nursing skills</li> <li>✓ Psychiatric and Mental Health Nursing skills</li> <li>✓ Rehabilitation Nursing skills</li> <li>✓ Radiology nurse skills</li> </ul>
<b>002 Kwale County</b>	<ul style="list-style-type: none"> <li>✓ Oncology skills</li> <li>✓ Radiography skills</li> <li>✓ Pharmacy skills</li> <li>✓ Clinical officers skills</li> <li>✓ Medical laboratory technology skills</li> <li>✓ Orthopaedics skills</li> <li>✓ Ophthalmology skills</li> <li>✓ Radiology skills</li> <li>✓ Hospice Palliative Care Nursing skills</li> <li>✓ Medical-Surgical Nursing skills</li> <li>✓ Nephrology Nursing skills</li> <li>✓ Neuroscience Nursing skills</li> <li>✓ Occupational Health Nursing skills</li> <li>✓ Cardiovascular Nursing skills</li> <li>✓ Oncology Nursing skills</li> <li>✓ Orthopaedic Nursing skills</li> <li>✓ Paraesthesia Nursing skills</li> <li>✓ Perinatal Nursing skills</li> <li>✓ Perioperative Nursing skills</li> <li>✓ Psychiatric and Mental Health Nursing skills</li> <li>✓ Rehabilitation Nursing skills</li> <li>✓ Radiology Nursing skills</li> <li>✓ Psychiatrists skills</li> <li>✓ Nutrition skills</li> <li>✓ Gynaecology skills</li> <li>✓ Paediatric skills</li> </ul>
	<ul style="list-style-type: none"> <li>✓ Virology specialists skills</li> <li>✓ Medical and surgical specialists</li> <li>✓ Physiotherapy skills</li> <li>✓ Medical laboratory technologists</li> <li>✓ Bio-medical engineering skills</li> <li>✓ Diagnostic imaging skills</li> <li>✓ Community health skills</li> </ul>
<b>003 Kilifi County</b>	<ul style="list-style-type: none"> <li>✓ Radiography</li> <li>✓ Pharmacy</li> <li>✓ Hospice Palliative Care Nursing</li> <li>✓ Medical-Surgical Nursing</li> <li>✓ Nephrology Nursing</li> <li>✓ Neuroscience Nursing</li> <li>✓ Occupational Health Nursing</li> <li>✓ Cardiovascular nurse</li> <li>✓ Oncology Nursing</li> <li>✓ Orthopaedic Nursing</li> <li>✓ Paraesthesia Nursing</li> <li>✓ Perinatal Nursing</li> <li>✓ Perioperative Nursing</li> <li>✓ Psychiatric and Mental Health Nursing</li> <li>✓ Rehabilitation Nursing</li> <li>✓ Radiology nurse</li> <li>✓ Medical laboratory Technology</li> <li>✓ Orthopaedics</li> <li>✓ Ophthalmology</li> <li>✓ HIV/AIDS specialists</li> <li>✓ Gynaecology</li> <li>✓ Community Health Workers</li> <li>✓ Nutrition</li> <li>✓ Oncology</li> <li>✓ Information management expertise</li> <li>✓ Medico-legal skills</li> <li>✓ Public health specialists</li> <li>✓ Biostatisticians</li> <li>✓ Epidemiological skills</li> </ul>
<b>004 Tana River county</b>	<ul style="list-style-type: none"> <li>✓ Pharm. Technology</li> <li>✓ Dental Technology</li> <li>✓ Lab. Technology</li> <li>✓ Orthopaedic Nursing</li> <li>✓ Paraesthesia Nursing</li> <li>✓ Perinatal Nursing</li> <li>✓ Perioperative Nursing</li> <li>✓ Psychiatric and Mental Health Nursing</li> <li>✓ Rehabilitation Nursing</li> <li>✓ Radiology nurse</li> <li>✓ Public health specialists</li> <li>✓ Biostatisticians</li> <li>✓ Obstetrics</li> <li>✓ Radiography</li> <li>✓ Physiotherapy</li> </ul>



	<ul style="list-style-type: none"> <li>✓ Gynaecology</li> <li>✓ Psychiatry</li> <li>✓ Counsellor</li> <li>✓ Radiology</li> <li>✓ Oncology</li> <li>✓ Epidemiological skills</li> <li>✓ Health communication skills</li> <li>✓ Laboratory technical and management skills</li> <li>✓ Medical engineering ing</li> <li>✓ Surgical specialists</li> </ul>
<b>005 Lamu county</b>	<ul style="list-style-type: none"> <li>✓ Orthopaedic Nursing</li> <li>✓ Perinatal Nursing</li> <li>✓ Psychiatric and Mental Health Nursing</li> <li>✓ Rehabilitation Nursing</li> <li>✓ Radiology nurse</li> <li>✓ Social health workers</li> <li>✓ Patient attendants</li> <li>✓ Dermatology</li> <li>✓ Medical engineering ing</li> <li>✓ Surgical specialists</li> <li>✓ Obstetrics</li> <li>✓ Radiography</li> <li>✓ Physiotherapy</li> <li>✓ Gynaecology</li> <li>✓ Psychiatry</li> <li>✓ Counsellor</li> <li>✓ Radiology</li> <li>✓ Oncology</li> <li>✓ Occupational Therapy</li> <li>✓ Pharm. Technology</li> <li>✓ Dental Technology</li> <li>✓ Lab. Technology</li> <li>✓ Health Record &amp; Information Technology</li> </ul>
<b>006 Taita Taveta</b>	<ul style="list-style-type: none"> <li>✓ Pathology</li> <li>✓ Radiology</li> <li>✓ Hospice Palliative Care Nursing</li> <li>✓ Medical-Surgical Nursing</li> <li>✓ Nephrology Nursing</li> <li>✓ Neuroscience Nursing</li> <li>✓ Occupational Health Nursing</li> <li>✓ Cardiovascular nurse</li> <li>✓ Oncology Nursing</li> <li>✓ Orthopaedic Nursing</li> <li>✓ Paraesthesia Nursing</li> <li>✓ Perinatal Nursing</li> <li>✓ Perioperative Nursing</li> <li>✓ Psychiatric and Mental Health Nursing</li> <li>✓ Rehabilitation Nursing</li> <li>✓ Radiology nurse</li> <li>✓ Orthopaedic Nursing</li> <li>✓ Paraesthesia Nursing</li> </ul>
	<ul style="list-style-type: none"> <li>✓ Perinatal Nursing</li> <li>✓ Perioperative Nursing</li> <li>✓ Social health workers</li> <li>✓ Patient attendants</li> </ul>
<b>007 Garissa County</b>	<ul style="list-style-type: none"> <li>✓ Oncology Nursing</li> <li>✓ Orthopaedic Nursing</li> <li>✓ Pharmacy</li> <li>✓ Orthopaedic technologists</li> <li>✓ Nutrition</li> <li>✓ Dermatology</li> <li>✓ Radiography</li> <li>✓ Physiotherapy</li> <li>✓ Gynaecology</li> <li>✓ Psychiatry</li> <li>✓ Counsellor</li> <li>✓ Social health workers</li> <li>✓ Patient attendants</li> <li>✓ Radiology</li> <li>✓ Oncology</li> <li>✓ Medical-Surgical Nursing</li> <li>✓ Nephrology Nursing</li> <li>✓ Neuroscience Nursing</li> <li>✓ Occupational Health Nursing</li> <li>✓ Cardiovascular nurse</li> <li>✓ Orthopaedic Nursing</li> <li>✓ Paraesthesia Nursing</li> <li>✓ Perinatal Nursing</li> <li>✓ Perioperative Nursing</li> <li>✓ Psychiatric and Mental Health Nursing</li> <li>✓ Rehabilitation Nursing</li> <li>✓ Radiology nurse</li> <li>✓ Occupational Therapists</li> </ul>
<b>008 Wajir County</b>	<ul style="list-style-type: none"> <li>✓ Cardiovascular Nursing</li> <li>✓ Community Health Nursing</li> <li>✓ Critical Care Nursing</li> <li>✓ Critical Care Paediatric Nursing</li> <li>✓ Emergency Nursing</li> <li>✓ Nutrition</li> <li>✓ Dermatology</li> <li>✓ Radiography</li> <li>✓ Physiotherapy</li> <li>✓ Gynaecology</li> <li>✓ Psychiatry</li> <li>✓ Enterostomal Therapy Nursing</li> <li>✓ Gastroenterology Nursing</li> <li>✓ Hospice Palliative Care Nursing</li> <li>✓ Medical-Surgical Nursing</li> <li>✓ Nephrology Nursing</li> <li>✓ Neuroscience Nursing</li> <li>✓ Occupational Health Nursing</li> <li>✓ Cardiovascular nurse</li> <li>✓ Oncology Nursing</li> <li>✓ Orthopaedic Nursing</li> <li>✓ Paraesthesia Nursing</li> </ul>



	<ul style="list-style-type: none"> <li>✓ Perinatal Nursing</li> <li>✓ Perioperative Nursing</li> <li>✓ Psychiatric and Mental Health Nursing</li> <li>✓ Rehabilitation Nursing</li> <li>✓ Radiology nurse</li> </ul>
<b>009 Mandera County</b>	<ul style="list-style-type: none"> <li>✓ Rehabilitation Nursing</li> <li>✓ Radiology nurse</li> <li>✓ Social health workers</li> <li>✓ Quality Assurance Specialists</li> <li>✓ Dermatology</li> <li>✓ Medical sing</li> <li>✓ Surgical specialists</li> <li>✓ Obstetrics</li> <li>✓ Radiography</li> <li>✓ Physiotherapy</li> <li>✓ Gynaecology</li> <li>✓ Psychiatry</li> <li>✓ Counsellor</li> <li>✓ Radiology</li> <li>✓ Oncology</li> <li>✓ Occupational Therapy</li> <li>✓ Pharm. Technology</li> <li>✓ Dental Technology</li> <li>✓ Lab. Technology</li> <li>✓ Plaster Technology</li> </ul>
<b>010 Marsabit County</b>	<ul style="list-style-type: none"> <li>✓ Community Health Nursing</li> <li>✓ Critical Care Nursing</li> <li>✓ Critical Care Paediatric Nursing</li> <li>✓ Nephrology</li> <li>✓ Nephrology nursing</li> <li>✓ Social health workers</li> <li>✓ Mortuary attendants</li> <li>✓ Patient attendants</li> <li>✓ Quality Assurance Specialists</li> <li>✓ Medical engineering</li> <li>✓ Surgical specialists</li> <li>✓ Obstetrics</li> <li>✓ Gynaecology</li> <li>✓ Neurosurgery</li> <li>✓ Orthopaedic surgery</li> <li>✓ Plastic surgery</li> <li>✓ Cardiothoracic surgery</li> <li>✓ Paediatric surgery</li> <li>✓ Oral maxillofacial surgery</li> <li>✓ Uro-surgical specialists</li> <li>✓ Ophthalmologists</li> <li>✓ Diabetic specialists</li> <li>✓ Neuro physicians</li> </ul>
<b>011 Isiolo County</b>	<ul style="list-style-type: none"> <li>✓ Community Health Nursing</li> <li>✓ Critical Care Nursing</li> <li>✓ Dermatology</li> <li>✓ Medical engineering</li> <li>✓ Surgical specialists</li> <li>✓ Obstetrics</li> </ul>
	<ul style="list-style-type: none"> <li>✓ Radiography</li> <li>✓ Critical Care Paediatric Nursing</li> <li>✓ Nephrology</li> <li>✓ Nephrology nursing</li> <li>✓ Social health workers</li> <li>✓ Mortuary attendants</li> <li>✓ HIV Testing and counselling Specialists(HTC)</li> <li>✓ Patient attendants</li> <li>✓ Quality Assurance Specialists</li> <li>✓ Medical engineering</li> <li>✓ Surgical specialists</li> <li>✓ Obstetrics</li> <li>✓ Neurosurgery</li> <li>✓ Orthopaedic surgery</li> <li>✓ Plastic surgery</li> <li>✓ Physiotherapy</li> <li>✓ Gynaecology</li> <li>✓ Psychiatry</li> <li>✓ Counsellor</li> <li>✓ Radiology</li> <li>✓ Oncology</li> <li>✓ Cardiothoracic surgery</li> <li>✓ Paediatric surgery</li> <li>✓ Oral maxillofacial surgery</li> <li>✓ Uro-surgical specialists</li> <li>✓ Ophthalmologists</li> <li>✓ Diabetic specialists</li> <li>✓ Neuro physicians</li> </ul>
<b>012 Meru County</b>	<ul style="list-style-type: none"> <li>✓ Physiotherapy</li> <li>✓ Gynaecology</li> <li>✓ Psychiatry</li> <li>✓ Radiology</li> <li>✓ Oncology</li> <li>✓ Occupational Therapy</li> <li>✓ Pharm. Technology</li> <li>✓ Dental Technology</li> <li>✓ Lab. Technology</li> <li>✓ Enterostomal Therapy Nursing</li> <li>✓ Gastroenterology Nursing</li> <li>✓ Hospice Palliative Care Nursing</li> <li>✓ Medical-Surgical Nursing</li> <li>✓ Nephrology Nursing</li> <li>✓ Neuroscience Nursing</li> <li>✓ Occupational Health Nursing</li> <li>✓ Cardiovascular nurse</li> <li>✓ Oncology Nursing</li> <li>✓ Orthopaedic Nursing</li> <li>✓ Paraesthesia Nursing</li> <li>✓ Perinatal Nursing</li> <li>✓ Perioperative Nursing</li> <li>✓ Psychiatric and Mental Health Nursing</li> <li>✓ Rehabilitation Nursing</li> <li>✓ Radiology nurse</li> </ul>

	<ul style="list-style-type: none"> <li>✓ Information management expertise</li> <li>✓ Public health specialists</li> <li>✓ Biostatisticians</li> <li>✓ Health communication skills</li> <li>✓ Laboratory technical and management skills</li> <li>✓ Critical Care Paediatric Nursing</li> <li>✓ Nephrology</li> </ul>
<b>013 Tharaka Nithi County</b>	<ul style="list-style-type: none"> <li>✓ Nutrition</li> <li>✓ Dermatology</li> <li>✓ Radiography</li> <li>✓ Physiotherapy</li> <li>✓ Gynaecology</li> <li>✓ Pharm. Technology</li> <li>✓ Dental Technology</li> <li>✓ Lab. Technology</li> <li>✓ Enterostomal Therapy Nursing</li> <li>✓ Gastroenterology Nursing</li> <li>✓ Nephrology Nursing</li> <li>✓ Neuroscience Nursing</li> <li>✓ Occupational Health Nursing</li> <li>✓ Cardiovascular nurse</li> <li>✓ Oncology Nursing</li> <li>✓ Orthopaedic Nursing</li> <li>✓ Surgical specialists</li> <li>✓ Obstetrics</li> <li>✓ Orthopaedic surgery</li> <li>✓ Physiotherapy</li> <li>✓ Gynaecology</li> <li>✓ Psychiatry</li> </ul>
<b>014 Embu County</b>	<ul style="list-style-type: none"> <li>✓ Medical engineering</li> <li>✓ Surgical specialists</li> <li>✓ Obstetrics</li> <li>✓ Neurosurgery</li> <li>✓ Orthopaedic surgery</li> <li>✓ Plastic surgery</li> <li>✓ Physiotherapy</li> <li>✓ Gynaecology</li> <li>✓ Psychiatry</li> <li>✓ Counsellor</li> <li>✓ Radiology</li> <li>✓ Oncology</li> <li>✓ Dental Technology</li> <li>✓ Lab. Technology</li> <li>✓ Plaster Technology</li> <li>✓ Information management expertise</li> <li>✓ Health communication skills</li> <li>✓ Laboratory technical and management skills</li> <li>✓ Community Health Nursing</li> <li>✓ Critical Care Nursing</li> <li>✓ Critical Care Paediatric Nursing</li> <li>✓ Nephrology</li> </ul>

	<ul style="list-style-type: none"> <li>✓ Nephrology nursing</li> <li>✓ Social health workers</li> <li>✓ Mortuary attendants</li> <li>✓ Oral maxillofacial surgery</li> <li>✓ Uro-surgical specialists</li> <li>✓ Ophthalmologists</li> <li>✓ Diabetic specialists</li> <li>✓ Neuro physicians</li> </ul>
<b>015 Kitui County</b>	<ul style="list-style-type: none"> <li>✓ Nutrition</li> <li>✓ Dermatology</li> <li>✓ Radiography</li> <li>✓ Physiotherapy</li> <li>✓ Gynaecology</li> <li>✓ Psychiatry</li> <li>✓ Pharm. Technology</li> <li>✓ Dental Technology</li> <li>✓ Lab. Technology</li> <li>✓ Public health specialists</li> <li>✓ Biostatisticians</li> <li>✓ Epidemiological skills</li> <li>✓ Health communication skills</li> <li>✓ Community Health Nursing</li> <li>✓ Critical Care Nursing</li> <li>✓ Critical Care Paediatric Nursing</li> <li>✓ Nephrology</li> <li>✓ Nephrology nursing</li> <li>✓ Social health workers</li> <li>✓ Mortuary attendants</li> <li>✓ Paediatric surgery</li> <li>✓ Oral maxillofacial surgery</li> <li>✓ Uro-surgical specialists</li> <li>✓ Ophthalmologists</li> <li>✓ Diabetic specialists</li> </ul>
<b>016 Machakos County</b>	<ul style="list-style-type: none"> <li>✓ Gynaecology</li> <li>✓ Nutrition</li> <li>✓ Dermatology</li> <li>✓ Radiography</li> <li>✓ Physiotherapy</li> <li>✓ Gynaecology</li> <li>✓ Psychiatry</li> <li>✓ Pharm. Technology</li> <li>✓ Dental Technology</li> <li>✓ Lab. Technology</li> <li>✓ Public health specialists</li> <li>✓ Biostatisticians</li> <li>✓ Epidemiological skills</li> <li>✓ Health communication skills</li> <li>✓ Laboratory technical and management skills</li> <li>✓ Community Health Nursing</li> <li>✓ Critical Care Paediatric Nursing</li> <li>✓ Nephrology</li> <li>✓ Nephrology nursing</li> <li>✓ Social health workers</li> </ul>

<b>017 Makueni County</b>	<ul style="list-style-type: none"> <li>✓ Critical Care Nursing</li> <li>✓ Dermatology</li> <li>✓ Medical engineering</li> <li>✓ Surgical specialists</li> <li>✓ Obstetrics</li> <li>✓ Radiography</li> <li>✓ Critical Care Paediatric Nursing</li> <li>✓ Nephrology</li> <li>✓ Nephrology nursing</li> <li>✓ Neuroscience Nursing</li> <li>✓ Occupational Health Nursing</li> <li>✓ Cardiovascular nurse</li> <li>✓ Oncology Nursing</li> <li>✓ Orthopaedic Nursing</li> <li>✓ Paraesthesia Nursing</li> <li>✓ Perinatal Nursing</li> <li>✓ Perioperative Nursing</li> <li>✓ Psychiatric and Mental Health Nursing</li> <li>✓ Rehabilitation Nursing</li> <li>✓ Radiology nurse</li> <li>✓ Social health workers</li> <li>✓ Medical engineering</li> <li>✓ Surgical specialists</li> <li>✓ Obstetrics</li> <li>✓ Neurosurgery</li> <li>✓ Physiotherapy</li> <li>✓ Gynaecology</li> <li>✓ Psychiatry</li> <li>✓ Counsellor</li> <li>✓ Radiology</li> <li>✓ Oncology</li> <li>✓ Cardiothoracic surgery</li> <li>✓ Paediatric surgery</li> <li>✓ Oral maxillofacial surgery</li> <li>✓ Uro-surgical specialists</li> <li>✓ Ophthalmologists</li> <li>✓ Diabetic specialists</li> <li>✓ Neuro physicians</li> </ul>
<b>018 Nyandarua County</b>	<ul style="list-style-type: none"> <li>✓ Obstetrics</li> <li>✓ Nutrition</li> <li>✓ Dermatology</li> <li>✓ Physiotherapy</li> <li>✓ Gynaecology</li> <li>✓ Psychiatry</li> <li>✓ Pharm. Technology</li> <li>✓ Dental Technology</li> <li>✓ Lab. Technology</li> <li>✓ Neurosurgery</li> <li>✓ Orthopaedic surgery</li> <li>✓ Plastic surgery</li> <li>✓ Physiotherapy</li> <li>✓ Counsellor</li> <li>✓ Radiology</li> <li>✓ Occupational Health Nursing</li> </ul>
	<ul style="list-style-type: none"> <li>✓ Cardiovascular nurse</li> <li>✓ Oncology Nursing</li> <li>✓ Orthopaedic Nursing</li> <li>✓ Paraesthesia Nursing</li> <li>✓ Perinatal Nursing</li> <li>✓ Perioperative Nursing</li> <li>✓ Psychiatric and Mental Health Nursing</li> <li>✓ Rehabilitation Nursing</li> <li>✓ Radiology nurse</li> </ul>
<b>019 Nyeri County</b>	<ul style="list-style-type: none"> <li>✓ Laboratory technical and management skills</li> <li>✓ Community Health Nursing</li> <li>✓ Critical Care Nursing</li> <li>✓ Critical Care Paediatric Nursing</li> <li>✓ Nephrology</li> <li>✓ Public health specialists</li> <li>✓ Biostatisticians</li> <li>✓ Epidemiological skills</li> <li>✓ Health communication skills</li> <li>✓ Nephrology nursing</li> <li>✓ Social health workers</li> <li>✓ Patient attendants</li> <li>✓ Quality Assurance Specialists</li> <li>✓ Medical engineering</li> <li>✓ Surgical specialists</li> <li>✓ Obstetrics</li> <li>✓ Gynaecology</li> <li>✓ Neurosurgery</li> <li>✓ Orthopaedic surgery</li> <li>✓ Plastic surgery</li> <li>✓ Cardiothoracic surgery</li> <li>✓ Paediatric surgery</li> <li>✓ Oral maxillofacial surgery</li> <li>✓ Uro-surgical specialists</li> <li>✓ Ophthalmologists</li> <li>✓ Diabetic specialists</li> <li>✓ Psychiatry</li> </ul>
<b>020 Kirinyaga County</b>	<ul style="list-style-type: none"> <li>✓ Nutrition</li> <li>✓ Dermatology</li> <li>✓ Radiography</li> <li>✓ Physiotherapy</li> <li>✓ Gynaecology</li> <li>✓ Psychiatry</li> <li>✓ Pharm. Technology</li> <li>✓ Dental Technology</li> <li>✓ Lab. Technology</li> <li>✓ Neurosurgery</li> <li>✓ Orthopaedic surgery</li> <li>✓ Plastic surgery</li> <li>✓ Physiotherapy</li> <li>✓ Gynaecology</li> <li>✓ Psychiatry</li> <li>✓ Radiology</li> </ul>

	<ul style="list-style-type: none"> <li>✓ Cardiovascular Nursing</li> <li>✓ Community Health Nursing</li> <li>✓ Critical Care Nursing</li> <li>✓ Critical Care Paediatric Nursing</li> <li>✓ Emergency Nursing</li> <li>✓ Enterostomal Therapy Nursing</li> <li>✓ Gastroenterology Nursing</li> <li>✓ Erotological Nursing</li> <li>✓ Medical-Surgical Nursing</li> <li>✓ Nephrology Nursing</li> <li>✓ Occupational Health Nursing</li> <li>✓ Cardiovascular nurse</li> <li>✓ Oncology Nursing</li> <li>✓ Orthopaedic Nursing</li> <li>✓ Paraesthesia Nursing</li> <li>✓ Perinatal Nursing</li> <li>✓ Perioperative Nursing</li> <li>✓ Psychiatric and Mental Health Nursing</li> <li>✓ Rehabilitation Nursing</li> <li>✓ Radiology nurse</li> </ul>
<b>021 Murang'a County</b>	<ul style="list-style-type: none"> <li>✓ Critical Care Nursing</li> <li>✓ Dermatology</li> <li>✓ Medical engineering</li> <li>✓ Surgical specialists</li> <li>✓ Obstetrics</li> <li>✓ Physiotherapy</li> <li>✓ Gynaecology</li> <li>✓ Psychiatry</li> <li>✓ Counsellor</li> <li>✓ Radiology</li> <li>✓ Critical Care Paediatric Nursing</li> <li>✓ Nephrology</li> <li>✓ Nephrology nursing</li> <li>✓ Neuroscience Nursing</li> <li>✓ Occupational Health Nursing</li> <li>✓ Cardiovascular nurse</li> <li>✓ Oncology Nursing</li> <li>✓ Orthopaedic Nursing</li> <li>✓ Paraesthesia Nursing</li> <li>✓ Perinatal Nursing</li> <li>✓ Perioperative Nursing</li> <li>✓ Community Health Nursing</li> <li>✓ Critical Care Nursing</li> <li>✓ Critical Care Paediatric Nursing</li> <li>✓ Emergency Nursing</li> <li>✓ Enterostomal Therapy Nursing</li> <li>✓ Erotological Nursing</li> </ul>
<b>022 Kiambu County</b>	<ul style="list-style-type: none"> <li>✓ Dermatology</li> <li>✓ Radiography</li> <li>✓ Physiotherapy</li> <li>✓ Gynaecology</li> <li>✓ Psychiatry</li> <li>✓ Paediatric surgery</li> </ul>

	<ul style="list-style-type: none"> <li>✓ Oral maxillofacial surgery</li> <li>✓ Uro-surgical specialists</li> <li>✓ Ophthalmology</li> <li>✓ Diabetic specialists</li> <li>✓ Neuro physicians</li> <li>✓ Cardiac specialist</li> <li>✓ Pharm. Technology</li> <li>✓ Dental Technology</li> <li>✓ Lab. Technology</li> <li>✓ Perinatal Nursing</li> <li>✓ Health communication skills</li> <li>✓ Laboratory technical and management skills</li> <li>✓ Community Health Nursing</li> <li>✓ Perioperative Nursing</li> <li>✓ Community Health Nursing</li> <li>✓ Critical Care Paediatric Nursing</li> <li>✓ Emergency Nursing</li> <li>✓ Enterostomal Therapy Nursing</li> <li>✓ Gastroenterology Nursing</li> <li>✓ Hospice Palliative Care Nursing</li> <li>✓ Medical-Surgical Nursing</li> <li>✓ Nephrology Nursing</li> <li>✓ Neuroscience Nursing</li> <li>✓ Occupational Health Nursing</li> <li>✓ Cardiovascular nurse</li> <li>✓ Oncology Nursing</li> <li>✓ Orthopaedic Nursing</li> </ul>
<b>023 Turkana County</b>	<ul style="list-style-type: none"> <li>✓ Nutrition</li> <li>✓ Dermatology</li> <li>✓ Radiography</li> <li>✓ Physiotherapy</li> <li>✓ Gynaecology</li> <li>✓ Psychiatry</li> <li>✓ Pharm. Technology</li> <li>✓ Dental Technology</li> <li>✓ Lab. Technology</li> <li>✓ Public health specialists</li> <li>✓ Biostatisticians</li> <li>✓ Epidemiological skills</li> <li>✓ Health communication skills</li> <li>✓ Laboratory technical and management skills</li> <li>✓ Community Health Nursing</li> <li>✓ Critical Care Nursing</li> <li>✓ Critical Care Paediatric Nursing</li> <li>✓ Nephrology</li> <li>✓ Nephrology nursing</li> <li>✓ Social health workers</li> <li>✓ Mortuary attendants</li> <li>✓ Cardiothoracic surgery</li> <li>✓ Paediatric surgery</li> <li>✓ Oral maxillofacial surgery</li> <li>✓ Uro-surgical specialists</li> <li>✓ Ophthalmology</li> </ul>

	✓ Diabetic specialists
<b>024 West Pokot County</b>	<ul style="list-style-type: none"> <li>✓ Nutrition</li> <li>✓ Dermatology</li> <li>✓ Radiography</li> <li>✓ Physiotherapy</li> <li>✓ Gynaecology</li> <li>✓ Psychiatry</li> <li>✓ Pharm. Technology</li> <li>✓ Dental Technology</li> <li>✓ Lab. Technology</li> <li>✓ Public health specialists</li> <li>✓ Biostatisticians</li> <li>✓ Epidemiological skills</li> <li>✓ Health communication skills</li> <li>✓ Laboratory technical and management skills</li> <li>✓ Community Health Nursing</li> <li>✓ Critical Care Nursing</li> <li>✓ Critical Care Paediatric Nursing</li> <li>✓ Nephrology</li> <li>✓ Nephrology nursing</li> <li>✓ Social health workers</li> <li>✓ Cardiothoracic surgery</li> <li>✓ Paediatric surgery</li> <li>✓ Oral maxillofacial surgery</li> <li>✓ Uro-surgical specialists</li> <li>✓ Ophthalmologists</li> <li>✓ Diabetic specialists</li> </ul>
<b>025 Samburu County</b>	<ul style="list-style-type: none"> <li>✓ Gynaecology</li> <li>✓ Psychiatry</li> <li>✓ Nutrition</li> <li>✓ Counsellor</li> <li>✓ Radiology</li> <li>✓ Social health workers</li> <li>✓ Cardiothoracic surgery</li> <li>✓ Paediatric surgery</li> <li>✓ Oral maxillofacial surgery</li> <li>✓ Ophthalmology</li> <li>✓ Diabetic specialists</li> <li>✓ Neuro physicians</li> <li>✓ Cardiac specialist</li> <li>✓ Pharm. Technology</li> <li>✓ Dental Technology</li> <li>✓ Lab. Technology</li> <li>✓ Perinatal Nursing</li> </ul>
<b>026 Trans-Nzoia CG</b>	<ul style="list-style-type: none"> <li>✓ Ophthalmology</li> <li>✓ Dental Technology</li> <li>✓ Lab. Technology</li> <li>✓ Plaster Technology</li> <li>✓ Monitoring and evaluation skills</li> <li>✓ Information management expertise</li> <li>✓ Public health specialists</li> <li>✓ Biostatisticians</li> </ul>

	<ul style="list-style-type: none"> <li>✓ Epidemiological skills</li> <li>✓ Health communication skills</li> <li>✓ Community Health Nursing</li> <li>✓ Critical Care Nursing</li> <li>✓ Critical Care Paediatric Nursing</li> <li>✓ Nephrology</li> <li>✓ Nephrology nursing</li> <li>✓ Social health workers</li> <li>✓ Mortuary attendants</li> <li>✓ Diabetic specialists</li> <li>✓ Neuro physicians</li> <li>✓ Cardiac specialist</li> <li>✓ Pharm. Technology</li> <li>✓ Dental Technology</li> <li>✓ Lab. Technology</li> <li>✓ Perinatal Nursing</li> <li>✓ Dermatology</li> <li>✓ Radiography</li> <li>✓ Physiotherapy</li> <li>✓ Gynaecology</li> <li>✓ Psychiatry</li> <li>✓ Nutrition</li> </ul>
<b>027 Uasin-Gishu CG</b>	<ul style="list-style-type: none"> <li>✓ Ophthalmologists</li> <li>✓ Diabetic specialists</li> <li>✓ Neuro physicians</li> <li>✓ Cardiac specialist</li> <li>✓ Pharm. Technology</li> <li>✓ Dental Technology</li> <li>✓ Lab. Technology</li> <li>✓ Perinatal Nursing</li> <li>✓ Community Health Nursing</li> <li>✓ Perioperative Nursing</li> <li>✓ Community Health Nursing</li> <li>✓ Critical Care Nursing</li> <li>✓ Critical Care Paediatric Nursing</li> <li>✓ Emergency Nursing</li> <li>✓ Oncology</li> <li>✓ Dermatology</li> <li>✓ Radiography</li> <li>✓ Physiotherapy</li> <li>✓ Gynaecology</li> <li>✓ Psychiatry</li> <li>✓ Enterostomal Therapy Nursing</li> </ul>
<b>028 Elgeyo-Marakwet CG</b>	<ul style="list-style-type: none"> <li>✓ Dermatology</li> <li>✓ Radiography</li> <li>✓ Oncology</li> <li>✓ Physiotherapy</li> <li>✓ Gynaecology</li> <li>✓ Psychiatry</li> <li>✓ Diabetic specialists</li> <li>✓ Neuro physicians</li> <li>✓ Cardiac specialist</li> </ul>

	<ul style="list-style-type: none"> <li>✓ Pharm. Technology</li> <li>✓ Dental Technology</li> <li>✓ Lab. Technology</li> <li>✓ Perinatal Nursing</li> <li>✓ Health communication skills</li> <li>✓ Community Health Nursing</li> <li>✓ Perioperative Nursing</li> <li>✓ Community Health Nursing</li> <li>✓ Critical Care Nursing</li> <li>✓ Critical Care Paediatric Nursing</li> <li>✓ Neuroscience Nursing</li> <li>✓ Occupational Health Nursing</li> <li>✓ Cardiovascular nurse</li> <li>✓ Oncology Nursing</li> <li>✓ Orthopaedic Nursing</li> </ul>
<b>029 Nandi CG</b>	<ul style="list-style-type: none"> <li>✓ Medical engineering</li> <li>✓ Surgical specialists</li> <li>✓ Obstetrics</li> <li>✓ Dermatology</li> <li>✓ Radiography</li> <li>✓ Oncology</li> <li>✓ Gynaecology</li> <li>✓ Neurosurgery</li> <li>✓ Orthopaedic surgery</li> <li>✓ Plastic surgery</li> <li>✓ Uro-surgical specialists</li> <li>✓ Perinatal Nursing</li> <li>✓ Perioperative Nursing</li> <li>✓ Psychiatric and Mental Health Nursing</li> <li>✓ Rehabilitation Nursing</li> <li>✓ Radiology nurse</li> <li>✓ Social health workers</li> <li>✓ Patient attendants</li> <li>✓ Ophthalmologists</li> <li>✓ Diabetic specialists</li> <li>✓ Neuro physicians</li> <li>✓ Cardiac specialist</li> <li>✓ Psychiatry</li> </ul>
<b>030 Baringo CG</b>	<ul style="list-style-type: none"> <li>✓ Perinatal Nursing</li> <li>✓ Nephrology</li> <li>✓ Perioperative Nursing</li> <li>✓ Psychiatric and Mental Health Nursing</li> <li>✓ Rehabilitation Nursing</li> <li>✓ Radiology nurse</li> <li>✓ Social health workers</li> <li>✓ Patient attendants</li> <li>✓ Dermatology</li> <li>✓ Radiography</li> <li>✓ Oncology</li> <li>✓ Physiotherapy</li> <li>✓ Gynaecology</li> <li>✓ Psychiatry</li> <li>✓ Diabetic specialists</li> </ul>
	<ul style="list-style-type: none"> <li>✓ Neuro physicians</li> <li>✓ Cardiac specialist</li> <li>✓ Pharm. Technology</li> <li>✓ Dental Technology</li> <li>✓ Lab. Technology</li> </ul>
<b>031 Laikipia CG</b>	<ul style="list-style-type: none"> <li>✓ Radiology</li> <li>✓ Psychiatry</li> <li>✓ Nutrition</li> <li>✓ Dermatology</li> <li>✓ Gynaecology</li> <li>✓ Pediatric</li> <li>✓ Pharm. Technology</li> <li>✓ Dental Technology</li> <li>✓ Lab. Technology</li> <li>✓ Perinatal Nursing</li> <li>✓ Nephrology</li> <li>✓ Perioperative Nursing</li> <li>✓ Psychiatric and Mental Health Nursing</li> <li>✓ Rehabilitation Nursing</li> <li>✓ Radiology nurse</li> <li>✓ Social health workers</li> <li>✓ Patient attendants</li> </ul>
<b>032 Nakuru CG</b>	<ul style="list-style-type: none"> <li>✓ Dermatology</li> <li>✓ Medical engineering</li> <li>✓ Surgical specialists</li> <li>✓ Obstetrics</li> <li>✓ Radiography</li> <li>✓ Critical Care Paediatric Nursing</li> <li>✓ Nephrology</li> <li>✓ Nephrology nursing</li> <li>✓ Neuroscience Nursing</li> <li>✓ Occupational Health Nursing</li> <li>✓ Cardiovascular nurse</li> <li>✓ Oncology Nursing</li> <li>✓ Orthopaedic Nursing</li> <li>✓ Paraesthesia Nursing</li> <li>✓ Perinatal Nursing</li> <li>✓ Perioperative Nursing</li> <li>✓ Psychiatric and Mental Health Nursing</li> <li>✓ Rehabilitation Nursing</li> <li>✓ Radiology nurse</li> <li>✓ Social health workers</li> <li>✓ Patient attendants</li> <li>✓ Quality Assurance Specialists</li> </ul>
<b>033 Narok CG</b>	<ul style="list-style-type: none"> <li>✓ Dermatology</li> <li>✓ Radiography</li> <li>✓ Oncology</li> <li>✓ Physiotherapy</li> <li>✓ Gynaecology</li> <li>✓ Psychiatry</li> <li>✓ Diabetic specialists</li> <li>✓ Neuro physicians</li> <li>✓ Cardiac specialist</li> </ul>

	<ul style="list-style-type: none"> <li>✓ Pharm. Technology</li> <li>✓ Dental Technology</li> <li>✓ Lab. Technology</li> <li>✓ Community Health Nursing</li> <li>✓ Perioperative Nursing</li> <li>✓ Community Health Nursing</li> <li>✓ Critical Care Nursing</li> <li>✓ Critical Care Paediatric Nursing</li> <li>✓ Enterostomal Therapy Nursing</li> <li>✓ Gastroenterology Nursing</li> <li>✓ Medical-Surgical Nursing</li> <li>✓ Nephrology Nursing</li> <li>✓ Neuroscience Nursing</li> <li>✓ Occupational Health Nursing</li> <li>✓ Cardiovascular nurse</li> <li>✓ Oncology Nursing</li> </ul>
<b>034 Kajiado CG</b>	<ul style="list-style-type: none"> <li>✓ Pharm. Technology</li> <li>✓ Dental Technology</li> <li>✓ Lab. Technology</li> <li>✓ Neurosurgery</li> <li>✓ Orthopaedic surgery</li> <li>✓ Plastic surgery</li> <li>✓ Physiotherapy</li> <li>✓ Gynaecology</li> <li>✓ Psychiatry</li> <li>✓ Counsellor</li> <li>✓ Cardiovascular Nursing</li> <li>✓ Community Health Nursing</li> <li>✓ Critical Care Nursing</li> <li>✓ Critical Care Paediatric Nursing</li> <li>✓ Enterostomal Therapy Nursing</li> <li>✓ Gastroenterology Nursing</li> <li>✓ Hospice Palliative Care Nursing</li> <li>✓ Medical-Surgical Nursing</li> <li>✓ Nephrology Nursing</li> <li>✓ Neuroscience Nursing</li> <li>✓ Occupational Health Nursing</li> <li>✓ Cardiovascular nurse</li> <li>✓ Oncology Nursing</li> <li>✓ Orthopaedic Nursing</li> <li>✓ Paraesthesia Nursing</li> <li>✓ Perinatal Nursing</li> <li>✓ Rehabilitation Nursing</li> <li>✓ Radiology nurse</li> </ul>
<b>035 Kericho CG</b>	<ul style="list-style-type: none"> <li>✓ Pharm. Technology</li> <li>✓ Dental Technology</li> <li>✓ Lab. Technology</li> <li>✓ Neurosurgery</li> <li>✓ Orthopaedic surgery</li> <li>✓ Plastic surgery</li> <li>✓ Physiotherapy</li> <li>✓ Gynaecology</li> <li>✓ Psychiatry</li> <li>✓ Oncology</li> <li>✓ Radiology</li> </ul>
	<ul style="list-style-type: none"> <li>✓ Cardiovascular Nursing</li> <li>✓ Community Health Nursing</li> <li>✓ Critical Care Nursing</li> <li>✓ Critical Care Paediatric Nursing</li> <li>✓ Emergency Nursing</li> <li>✓ Enterostomal Therapy Nursing</li> <li>✓ Gastroenterology Nursing</li> <li>✓ Erotological Nursing</li> <li>✓ Hospice Palliative Care Nursing</li> <li>✓ Medical-Surgical Nursing</li> <li>✓ Nephrology Nursing</li> <li>✓ Neuroscience Nursing</li> <li>✓ Occupational Health Nursing</li> <li>✓ Cardiovascular nurse</li> <li>✓ Oncology Nursing</li> <li>✓ Orthopaedic Nursing</li> <li>✓ Paraesthesia Nursing</li> <li>✓ Perinatal Nursing</li> <li>✓ Rehabilitation Nursing</li> <li>✓ Radiology nurse</li> </ul>
<b>036 Bomet CG</b>	<ul style="list-style-type: none"> <li>✓ Gynaecology</li> <li>✓ Psychiatry</li> <li>✓ Counsellor</li> <li>✓ Oncology</li> <li>✓ Radiology</li> <li>✓ Nephrology</li> <li>✓ Pharm. Technology</li> <li>✓ Dental Technology</li> <li>✓ Lab. Technology</li> <li>✓ Cardiovascular Nursing</li> <li>✓ Community Health Nursing</li> <li>✓ Critical Care Nursing</li> <li>✓ Critical Care Paediatric Nursing</li> <li>✓ Emergency Nursing</li> <li>✓ Enterostomal Therapy Nursing</li> <li>✓ Gastroenterology Nursing</li> <li>✓ Erotological Nursing</li> <li>✓ Hospice Palliative Care Nursing</li> <li>✓ Medical-Surgical Nursing</li> <li>✓ Nephrology Nursing</li> <li>✓ Neuroscience Nursing</li> <li>✓ Occupational Health Nursing</li> <li>✓ Cardiovascular nurse</li> <li>✓ Oncology Nursing</li> <li>✓ Orthopaedic Nursing</li> <li>✓ Paraesthesia Nursing</li> <li>✓ Perinatal Nursing</li> <li>✓ Perioperative Nursing</li> <li>✓ Psychiatric and Mental Health Nursing</li> <li>✓ Radiology nurse</li> </ul>
<b>037 Kakamega CG</b>	<ul style="list-style-type: none"> <li>✓ Psychiatry</li> <li>✓ Radiology</li> <li>✓ Nutrition</li> <li>✓ Gynaecology</li> </ul>



	<ul style="list-style-type: none"> <li>✓ Paediatric</li> <li>✓ Counsellor</li> <li>✓ Nephrology</li> <li>✓ Pharm. Technology</li> <li>✓ Dental Technology</li> <li>✓ Lab. Technology</li> <li>✓ Neurosurgery</li> <li>✓ Orthopaedic surgery</li> <li>✓ Plastic surgery</li> <li>✓ Physiotherapy</li> <li>✓ Gynaecology</li> <li>✓ Cardiovascular Nursing</li> <li>✓ Community Health Nursing</li> <li>✓ Critical Care Nursing</li> <li>✓ Critical Care Paediatric Nursing</li> <li>✓ Emergency Nursing</li> <li>✓ Enterostomal Therapy Nursing</li> <li>✓ Gastroenterology Nursing</li> <li>✓ Nephrology Nursing</li> <li>✓ Neuroscience Nursing</li> <li>✓ Occupational Health Nursing</li> <li>✓ Cardiovascular nurse</li> <li>✓ Oncology Nursing</li> <li>✓ Orthopaedic Nursing</li> <li>✓ Paraesthesia Nursing</li> <li>✓ Perinatal Nursing</li> <li>✓ Rehabilitation Nursing</li> </ul>
<b>038 Vihiga County</b>	<ul style="list-style-type: none"> <li>✓ Radiology</li> <li>✓ Psychiatry</li> <li>✓ Nutrition</li> <li>✓ Gynaecology</li> <li>✓ Pediatric</li> <li>✓ Pharm. Technology</li> <li>✓ Dental Technology</li> <li>✓ Lab. Technology</li> <li>✓ Neurosurgery</li> <li>✓ Orthopaedic surgery</li> <li>✓ Plastic surgery</li> <li>✓ Physiotherapy</li> <li>✓ Gynaecology</li> <li>✓ Cardiovascular Nursing</li> <li>✓ Community Health Nursing</li> <li>✓ Critical Care Nursing</li> <li>✓ Critical Care Paediatric Nursing</li> <li>✓ Emergency Nursing</li> <li>✓ Enterostomal Therapy Nursing</li> <li>✓ Gastroenterology Nursing</li> <li>✓ Nephrology</li> <li>✓ Nephrology Nursing</li> <li>✓ Neuroscience Nursing</li> <li>✓ Occupational Health Nursing</li> <li>✓ Cardiovascular nurse</li> <li>✓ Oncology Nursing</li> <li>✓ Orthopaedic Nursing</li> <li>✓ Paraesthesia Nursing</li> </ul>
	<ul style="list-style-type: none"> <li>✓ Perinatal Nursing</li> <li>✓ Psychiatric and Mental Health Nursing</li> <li>✓ Rehabilitation Nursing</li> <li>✓ Radiology nurse</li> </ul>
<b>039 Bungoma County</b>	<ul style="list-style-type: none"> <li>✓ Perinatal Nursing</li> <li>✓ Nephrology</li> <li>✓ Perioperative Nursing</li> <li>✓ Psychiatric and Mental Health Nursing</li> <li>✓ Rehabilitation Nursing</li> <li>✓ Radiology nurse</li> <li>✓ Social health workers</li> <li>✓ Patient attendants</li> <li>✓ Dermatology</li> <li>✓ Pharm. Technology</li> <li>✓ Dental Technology</li> <li>✓ Lab. Technology</li> <li>✓ Radiology</li> <li>✓ Psychiatry</li> <li>✓ Nutrition</li> <li>✓ Gynaecology</li> <li>✓ Pediatric</li> <li>✓ Pharm. Technology</li> <li>✓ Oncology</li> </ul>
<b>040 Busia County</b>	<ul style="list-style-type: none"> <li>✓ Psychiatry</li> <li>✓ Counsellor</li> <li>✓ Nephrology</li> <li>✓ Pharm. Technology</li> <li>✓ Dental Technology</li> <li>✓ Lab. Technology</li> <li>✓ Neurosurgery</li> <li>✓ Orthopaedic surgery</li> <li>✓ Plastic surgery</li> <li>✓ Physiotherapy</li> <li>✓ Gynaecology</li> <li>✓ Cardiovascular Nursing</li> <li>✓ Community Health Nursing</li> <li>✓ Critical Care Nursing</li> <li>✓ Critical Care Paediatric Nursing</li> <li>✓ Emergency Nursing</li> <li>✓ Enterostomal Therapy Nursing</li> <li>✓ Gastroenterology Nursing</li> <li>✓ Nephrology Nursing</li> <li>✓ Neuroscience Nursing</li> <li>✓ Occupational Health Nursing</li> <li>✓ Cardiovascular nurse</li> <li>✓ Oncology Nursing</li> <li>✓ Orthopaedic Nursing</li> <li>✓ Paraesthesia Nursing</li> <li>✓ Perinatal Nursing</li> <li>✓ Radiology</li> <li>✓ Nutrition</li> <li>✓ Gynaecology</li> <li>✓ Pediatric</li> </ul>



	✓ Pharm. Technology
	✓ Oncology
<b>041 Siaya County</b>	✓ Psychiatry ✓ Counsellor ✓ Nephrology ✓ Pharm. Technology ✓ Dental Technology ✓ Lab. Technology ✓ Neurosurgery ✓ Orthopaedic surgery ✓ Plastic surgery ✓ Physiotherapy ✓ Gynaecology ✓ Cardiovascular Nursing ✓ Community Health Nursing ✓ Critical Care Nursing ✓ Critical Care Paediatric Nursing ✓ Emergency Nursing ✓ Enterostomal Therapy Nursing ✓ Gastroenterology Nursing ✓ Nephrology Nursing ✓ Neuroscience Nursing ✓ Occupational Health Nursing ✓ Cardiovascular nurse ✓ Oncology Nursing
<b>042 Kisumu County</b>	✓ Erotological Nursing ✓ Hospice Palliative Care Nursing ✓ Medical-Surgical Nursing ✓ Community Health Nursing ✓ Critical Care Nursing ✓ Psychiatry ✓ Counsellor ✓ Nephrology ✓ Pharm. Technology ✓ Dental Technology ✓ Lab. Technology ✓ Neurosurgery ✓ Orthopaedic surgery ✓ Plastic surgery ✓ Physiotherapy ✓ Gynaecology ✓ Cardiovascular Nursing ✓ Community Health Nursing ✓ Critical Care Nursing ✓ Critical Care Paediatric Nursing ✓ Emergency Nursing ✓ Enterostomal Therapy Nursing ✓ Gastroenterology Nursing ✓ Nephrology Nursing ✓ Neuroscience Nursing ✓ Occupational Health Nursing ✓ Cardiovascular nurse ✓ Oncology Nursing ✓ Orthopaedic Nursing ✓ Paraesthesia Nursing

	✓ Perinatal Nursing ✓ Perioperative Nursing ✓ Radiology nurse
<b>043 Homabay County</b>	✓ Paediatric surgery ✓ Oral maxillofacial surgery ✓ Uro-surgical specialists ✓ Medical-Surgical Nursing ✓ Nephrology Nursing ✓ Occupational Health Nursing ✓ Cardiovascular nurse ✓ Oncology Nursing ✓ Orthopaedic Nursing ✓ Paraesthesia Nursing ✓ Perinatal Nursing ✓ Perioperative Nursing ✓ Physiotherapy ✓ Gynaecology ✓ Community Health Nursing ✓ Critical Care Nursing ✓ Critical Care Paediatric Nursing ✓ Emergency Nursing ✓ Enterostomal Therapy Nursing ✓ Gastroenterology Nursing ✓ Nephrology Nursing ✓ Neuroscience Nursing ✓ Occupational Health Nursing ✓ Cardiovascular nurse ✓ Oncology Nursing ✓ Orthopaedic Nursing ✓ Paraesthesia Nursing ✓ Perinatal Nursing ✓ Perioperative Nursing ✓ Psychiatric and Mental Health Nursing ✓ Pharm. Technology ✓ Dental Technology ✓ Lab. Technology ✓ Ophthalmologists ✓ Diabetic specialists ✓ Neuro physicians ✓ Cardiac specialist ✓ Psychiatry
<b>044 Migori County</b>	✓ Cardiovascular Nursing ✓ Community Health Nursing ✓ Critical Care Nursing ✓ Critical Care Paediatric Nursing ✓ Enterostomal Therapy Nursing ✓ Gastroenterology Nursing ✓ Erotological Nursing ✓ Hospice Palliative Care Nursing ✓ Medical-Surgical Nursing ✓ Nephrology Nursing ✓ Neuroscience Nursing ✓ Oncology

	<ul style="list-style-type: none"> <li>✓ Radiography</li> <li>✓ Pharmacy</li> <li>✓ Dental</li> <li>✓ Clinical officers</li> <li>✓ Medical laboratory Technology</li> <li>✓ Orthopaedics</li> <li>✓ Ophthalmology</li> <li>✓ Nursing</li> <li>✓ Community Health workers</li> <li>✓ Radiology</li> <li>✓ Psychiatry</li> <li>✓ Nutrition</li> <li>✓ Gynaecology</li> <li>✓ Paediatric</li> </ul>
<b>045 Kisii County</b>	<ul style="list-style-type: none"> <li>✓ Enterostomal Therapy Nursing</li> <li>✓ Gastroenterology Nursing</li> <li>✓ Medical-Surgical Nursing</li> <li>✓ Nephrology Nursing</li> <li>✓ Neuroscience Nursing</li> <li>✓ Occupational Health Nursing</li> <li>✓ Cardiovascular nurse</li> <li>✓ Oncology Nursing</li> <li>✓ Orthopaedic Nursing</li> <li>✓ Paraesthesia Nursing</li> <li>✓ Perinatal Nursing</li> <li>✓ Perioperative Nursing</li> <li>✓ Oncology</li> <li>✓ Radiography</li> <li>✓ Pharmacy</li> <li>✓ Dental</li> <li>✓ Clinical officers</li> <li>✓ Medical laboratory Technology</li> <li>✓ Orthopaedics</li> <li>✓ Ophthalmology</li> <li>✓ Community Health workers</li> <li>✓ Radiology</li> <li>✓ Psychiatry</li> <li>✓ Nutrition</li> <li>✓ Gynaecology</li> <li>✓ Paediatric</li> </ul>
<b>046 Nyamira County</b>	<ul style="list-style-type: none"> <li>✓ Dental</li> <li>✓ Clinical officers</li> <li>✓ Medical laboratory Technology</li> <li>✓ Orthopaedics</li> <li>✓ Ophthalmology</li> <li>✓ Community Health workers</li> <li>✓ Radiology</li> <li>✓ Psychiatry</li> <li>✓ Cardiovascular Nursing</li> <li>✓ Community Health Nursing</li> <li>✓ Critical Care Nursing</li> <li>✓ Critical Care Paediatric Nursing</li> <li>✓ Enterostomal Therapy Nursing</li> <li>✓ Medical-Surgical Nursing</li> <li>✓ Nephrology Nursing</li> </ul>

	<ul style="list-style-type: none"> <li>✓ Neuroscience Nursing</li> <li>✓ Occupational Health Nursing</li> <li>✓ Cardiovascular nurse</li> <li>✓ Oncology Nursing</li> <li>✓ Orthopaedic Nursing</li> <li>✓ Paraesthesia Nursing</li> <li>✓ Perinatal Nursing</li> <li>✓ Perioperative Nursing</li> <li>✓ Psychiatric and Mental Health Nursing</li> <li>✓ Rehabilitation Nursing</li> <li>✓ Radiology nurse</li> <li>✓ Pharm. Technology</li> <li>✓ Dental Technology</li> <li>✓ Lab. Technology</li> <li>✓ Neurosurgery</li> <li>✓ Orthopaedic surgery</li> </ul>
<b>047 Nairobi County</b>	<ul style="list-style-type: none"> <li>✓ Nephrology</li> <li>✓ Pharm. Technology</li> <li>✓ Dental Technology</li> <li>✓ Lab. Technology</li> <li>✓ Neurosurgery</li> <li>✓ Orthopaedic surgery</li> <li>✓ Plastic surgery</li> <li>✓ Physiotherapy</li> <li>✓ Gynaecology</li> <li>✓ Oncology</li> <li>✓ Radiography</li> <li>✓ Pharmacy</li> <li>✓ Dental</li> <li>✓ Clinical officers</li> <li>✓ Medical laboratory Technology</li> <li>✓ Orthopaedics</li> <li>✓ Ophthalmology</li> <li>✓ Nursing</li> <li>✓ Community Health workers</li> <li>✓ Radiology</li> <li>✓ Psychiatry</li> <li>✓ Nutrition</li> <li>✓ Gynaecology</li> <li>✓ Paediatric</li> <li>✓ Psychiatry</li> <li>✓ Counsellor</li> <li>✓ Cardiovascular Nursing</li> <li>✓ Community Health Nursing</li> <li>✓ Critical Care Nursing</li> <li>✓ Critical Care Paediatric Nursing</li> <li>✓ Enterostomal Therapy Nursing</li> <li>✓ Gastroenterology Nursing</li> <li>✓ Erotological Nursing</li> <li>✓ Hospice Palliative Care Nursing</li> <li>✓ Medical-Surgical Nursing</li> <li>✓ Nephrology Nursing</li> <li>✓ Neuroscience Nursing</li> </ul>

✓	Occupational Health Nursing
✓	Cardiovascular nurse
✓	Oncology Nursing
✓	Orthopaedic Nursing
✓	Paraesthesia Nursing
✓	Perinatal Nursing
✓	Perioperative Nursing
✓	Psychiatric and Mental Health Nursing
✓	Rehabilitation Nursing
✓	Radiology nurse

## Affordable Housing

County Integrated Development Plan	Identified high priority and rare skills	
001 Mombasa County	<ul style="list-style-type: none"> <li>Construction management officers</li> <li>Urban /Regional Planners</li> <li>Physical Planners</li> <li>Geomatics surveyors</li> <li>Land surveyors</li> <li>Hydrographic surveyors</li> <li>Real estate managers</li> <li>Urban designer</li> <li>Land surveyors</li> <li>Civil engineers</li> <li>Artisans</li> <li>Civil, electrical and mechanical engineers</li> </ul>	<ul style="list-style-type: none"> <li>geomatics and land surveyors, hydrographic surveyors, quantity surveyors)</li> <li>GIS specialists</li> <li>Artisans</li> </ul>
002 Kwale County	<ul style="list-style-type: none"> <li>Urban /Regional Planners</li> <li>GIS analysts</li> <li>Physical Planners</li> <li>Project managers</li> <li>Land surveyors</li> </ul>	<ul style="list-style-type: none"> <li>Land Surveyors</li> <li>Cartographers</li> <li>GIS Specialists</li> <li>Structural engineers</li> <li>Physical planners</li> </ul>
003 Kilifi County	<ul style="list-style-type: none"> <li>Urban developers</li> <li>Physical/regional planners</li> <li>Land surveyors</li> <li>Hydrographic surveyors</li> <li>GIS analysts</li> <li>Construction Management Experts</li> </ul>	<ul style="list-style-type: none"> <li>Artisans</li> <li>Land surveyors</li> <li>GIS analysts</li> <li>Project managers</li> <li>Civil engineers</li> </ul>
004 Tana River county	<ul style="list-style-type: none"> <li>Land Surveyors</li> <li>Physical Planners</li> <li>GIS analysts</li> </ul>	<ul style="list-style-type: none"> <li>Urban /Regional Planners</li> <li>Physical Planners</li> <li>Cartographers</li> <li>GIS specialists</li> <li>Artisans</li> </ul>
005 Lamu county	<ul style="list-style-type: none"> <li>Urban /Regional developers</li> <li>Physical Planners</li> <li>Project managers</li> <li>Construction surveyors (building surveyors,</li> </ul>	<ul style="list-style-type: none"> <li>Cartographers</li> <li>Civil engineers</li> <li>Quantity surveyors</li> <li>Artisans</li> <li>Physical planners</li> </ul>
		<ul style="list-style-type: none"> <li>Cartographers</li> <li>Artisans i.e. plumbers, electricians, masons and painters</li> <li>Quantity surveyors</li> <li>Physical planners</li> </ul>
		<ul style="list-style-type: none"> <li>Land valuers</li> <li>Land surveyors</li> <li>Jua kali artisans</li> <li>GIS assistants</li> </ul>
		<ul style="list-style-type: none"> <li>Physical Planners</li> </ul>

County	<ul style="list-style-type: none"> <li>• Land Economists</li> <li>• Cartographers</li> <li>• Urban developers</li> <li>• GIS assistants</li> <li>• Building surveyors</li> <li>• Artisans</li> </ul>	020 Kirinyaga County	<ul style="list-style-type: none"> <li>• GIS analysts</li> <li>• Urban developers</li> <li>• Land surveyors</li> <li>• Land economists</li> </ul>
013 Tharaka Nithi County	<ul style="list-style-type: none"> <li>• Jua kali Artisans i.e. plumbers, electricians, masons and painters</li> <li>• Cartographers</li> <li>• Land economists</li> <li>• Project managers</li> <li>• Physical planners</li> </ul>	021 Murang'a County	<ul style="list-style-type: none"> <li>• Land surveyors</li> <li>• Land economists</li> <li>• GIS analysts</li> <li>• Quantity surveyors</li> </ul>
014 Embu County	<ul style="list-style-type: none"> <li>• Housing officers(Economists, Statisticians, Real Estate/Land Economists/Valuers, Construction Management Experts and Environmentalists)</li> <li>• Artisans i.e. plumbers, electricians, masons and painters</li> <li>• Project managers</li> </ul>	022 Kiambu County	<ul style="list-style-type: none"> <li>• GIS assistants</li> <li>• Land Economists/Valuers,</li> <li>• Urban /Regional Planners</li> <li>• Physical Planners</li> <li>• Real estate managers</li> </ul>
015 Kitui County	<ul style="list-style-type: none"> <li>• Construction surveyors (building surveyors, geomatics and land surveyors, hydrographic surveyors, quantity surveyors, engineering surveyor)</li> <li>• GIS analysts</li> </ul>	023 Turkana County	<ul style="list-style-type: none"> <li>• Construction management officers</li> <li>• Physical planners</li> <li>• Quantity surveyors</li> <li>• Land economists</li> <li>• GIS Analysts</li> </ul>
016 Machakos County	<ul style="list-style-type: none"> <li>• Building Technologists</li> <li>• Artisans i.e. plumbers, electricians, masons and painters</li> <li>• Project managers</li> <li>• GIS analysts</li> <li>• Construction Management Experts</li> </ul>	024 West Pokot County	<ul style="list-style-type: none"> <li>• Physical planers</li> <li>• GIS specialists</li> <li>• Land economists</li> </ul>
017 Makueni County	<ul style="list-style-type: none"> <li>• Spatial planners</li> <li>• Urban developers</li> <li>• GIS specialists</li> <li>• Land surveyors</li> </ul>	025 Samburu County	<ul style="list-style-type: none"> <li>• Artisans</li> <li>• Quantity surveyors</li> <li>• Physical planners</li> <li>• Mechanical engineers</li> <li>• Civil engineers</li> </ul>
018 Nyandarua County	<ul style="list-style-type: none"> <li>• GIS specialists</li> <li>• Land surveyors</li> <li>• Physical planners</li> <li>• Building service engineers</li> </ul>	026 Trans -Nzoia CG	<ul style="list-style-type: none"> <li>• GIS analysts</li> <li>• Land Surveyors</li> <li>• Land policy experts</li> <li>• Industrial zoning specialists</li> <li>• Electrical engineers</li> </ul>
019 Nyeri County	<ul style="list-style-type: none"> <li>• Physical planners</li> <li>• GIS analysts</li> <li>• Land surveyors</li> <li>• Project managers</li> </ul>	027 Uasin-Gishu CG	<ul style="list-style-type: none"> <li>• Urban Developers</li> <li>• Project managers</li> <li>• Urban /Regional Planners</li> <li>• Physical Planners</li> <li>• Real estate managers</li> <li>• Land economists</li> <li>• Civil engineers</li> <li>• Statisticians</li> </ul>
		028 Elgeyo-Marakwet CG	<ul style="list-style-type: none"> <li>• Construction managers</li> <li>• Civil engineers</li> <li>• cartographers</li> <li>• Urban /Regional Planners</li> <li>• Physical Planners</li> <li>• Land economists</li> <li>• Land policy experts</li> </ul>
		029 Nandi CG	<ul style="list-style-type: none"> <li>• Civil engineers</li> <li>• Cartographers</li> <li>• Structural engineers</li> </ul>

	<ul style="list-style-type: none"> <li>Land economists</li> <li>Landscape architect</li> </ul>
030 Baringo CG	<ul style="list-style-type: none"> <li>Project managers</li> <li>Land Economists/Valuers,</li> <li>Land surveyors</li> <li>Quantity surveyors</li> </ul>
031 Laikipia CG	<ul style="list-style-type: none"> <li>GIS analysts</li> <li>Structural engineers</li> <li>Mechanical Engineers</li> <li>Electrical Engineers,</li> <li>Land surveyors</li> <li>Quantity surveyors</li> </ul>
032 Nakuru CG	<ul style="list-style-type: none"> <li>Project managers</li> <li>Urban /Regional Planners</li> <li>Land economists</li> <li>Industrial architect</li> <li>Urban designer</li> <li>Hydrographic surveyors</li> <li>Civil engineers</li> <li>Artisans</li> </ul>
033 Narok CG	<ul style="list-style-type: none"> <li>GIS analysts</li> <li>Physical Planners</li> <li>Geomatic surveyors</li> <li>Land surveyors</li> <li>Project managers</li> <li>Land Economists/Valuers</li> </ul>
034 Kajiado CG	<ul style="list-style-type: none"> <li>Project managers</li> <li>Urban /Regional Planners</li> <li>Physical Planners</li> <li>Land surveyors</li> <li>Land Economists/Valuers</li> </ul>
035 Kericho CG	<ul style="list-style-type: none"> <li>Cartographer</li> <li>Land surveyors</li> <li>Physical planners</li> <li>Urban developers</li> <li>IT specialists</li> </ul>
036 Bomet CG	<ul style="list-style-type: none"> <li>Project managers</li> <li>GIS analysts</li> <li>Urban /Regional Planners</li> <li>Land economists</li> <li>Physical planners</li> </ul>
037 Kakamega CG	<ul style="list-style-type: none"> <li>GIS analysts</li> <li>Project managers</li> <li>Regional Planners</li> <li>Quantity surveyors</li> <li>Land economists</li> <li>Urban developers</li> </ul>
038 Vihiga County	<ul style="list-style-type: none"> <li>Land Economists</li> <li>Physical Planners</li> <li>Land surveyors</li> <li>GIS assistants</li> </ul>
039 Bungoma County	<ul style="list-style-type: none"> <li>Physical planners</li> <li>GIS assistants</li> </ul>

	<ul style="list-style-type: none"> <li>land surveyors</li> </ul>
040 Busia County	<ul style="list-style-type: none"> <li>Land Economists/Valuers</li> <li>Physical Planners</li> <li>GIS assistants</li> <li>Urban developers</li> <li>Artisans</li> <li>Civil engineers</li> <li>Mechanical/electrical enginmeers</li> <li>Land surveyors</li> <li>Quantity sueyors</li> </ul>
041 Siaya County	<ul style="list-style-type: none"> <li>Building inspectors</li> <li>GIS assistants</li> <li>Physical planners</li> </ul>
042 Kisumu County	<ul style="list-style-type: none"> <li>Urban /Regional Planners</li> <li>Artisans i.e. plumbers, electricians, masons and painters</li> <li>land surveyors</li> <li>hydrographic surveyors</li> <li>Cartographers</li> <li>Physical planners</li> <li>Structural engineers</li> </ul>
043 Homabay County	<ul style="list-style-type: none"> <li>Artisans</li> <li>land surveyors</li> <li>quantity surveyors</li> <li>Cartographers</li> <li>GIS assistants</li> </ul>
044 Migori County	<ul style="list-style-type: none"> <li>Physical Planners</li> <li>GIS assistants</li> <li>Civil engineers</li> <li>Electrical engineers</li> <li>mechanical engineers</li> </ul>
45 Kisii County	<ul style="list-style-type: none"> <li>Cartographers</li> <li>Building technologists</li> <li>Building inspectors</li> <li>GIS assistants</li> </ul>
046 Nyamira County	<ul style="list-style-type: none"> <li>Physical planners</li> <li>GIS assistants</li> <li>Artisans</li> <li>Land surveyors</li> <li>Urban developers</li> </ul>
047 Nairobi County	<ul style="list-style-type: none"> <li>Real estate managers</li> <li>Land surveyors</li> <li>Building surveyors</li> <li>Building Inspector</li> <li>Real Estate/Land Economists/Valuers</li> <li>Physical and urban development planners</li> <li>GIS assistants</li> <li>Artisans</li> <li>Technicians</li> </ul>

- Commercial architect
- Structural engineers

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