



BUNGOMA COUNTY

AGRICULTURE AND LIVESTOCK

SECTOR PLAN FOR THE PERIOD 2023-2032



“An Innovative, Sustainable and Commercially Oriented Agriculture and Livestock sector ”

KENYA 
VISION 2030
Towards a Globally Competitive and Prosperous Kenya

“Our Heritage, Our Wealth”

COUNTY GOVERNMENT OF BUNGOMA

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AGRICULTURE AND LIVESTOCK
SECTORAL PLAN FOR BUNGOMA COUNTY

Vision

An Innovative, sustainable and commercially oriented sector

Mission

To facilitate competitive agriculture through; enhanced institutional efficiency, capacity building, optimal and sustainable resource management, promotion of value addition, and marketing systems.

Sector Goal

A food secure and wealthy County with sustainable management and utilization of land and the blue economy

FOREWORD



The County Government Act, 2012, requires that counties prepare ten-year County Sectoral Plans. This County Sectoral Plan is programme-based and will be used as the basis for budgeting and performance management and shall be reviewed every five years by the County Executive and approved by the County Assembly. The Act also requires that the County Sectoral Plans be updated annually.

The plan seeks to achieve within the county the aspirations envisaged in the Constitution of Kenya, 2010 including the right to economic prosperity, the need for balanced development across the county, the right to a clean and healthy environment and the right to property among others. It is my expectation that the Sectoral Plan, being the second to be prepared for the sector by the County Government, will transform the county by giving guidelines on how best to utilise resources for socio-economic development.

The plan covers the entire county and encompasses all the 45 wards. It recognises that Bungoma as a county has various resources that require to be managed prudently. County financial and institutional resources through this plan have been aligned to policies, objectives and programmes. The plan is also aligned to National - Vision 2030, Regional -Agenda 2063 and Global Sustainable Development Goals among others for consistency and collaboration in economic development.

The Sectoral plan will stimulate distinct interest in policies, programmes and projects and allow feed- back to the executing County Departments and Agencies so that they can keep their progress on track. The plan is developed based on public assessment of status of government service delivery, identified gaps therein and suggested interventions.

The County Government will work with stakeholders to foster a broader use of the plan in ensuring efficiency, effectiveness, transparency and accountability in its implementation and resource utilization. I am confident that this collaboration will provide an effective feedback mechanism to the Government and where necessary, remedial actions will be undertaken to keep our development agenda on track.

It is my expectation that this Sectoral plan will be useful in providing a transformative development agenda for Bungoma County in the next ten years as well as fulfil the aspirations of Kenya’s Vision 2030.

A handwritten signature in black ink, appearing to read 'K. Lusaka', written over a horizontal line.

**H.E. KENNETH MAKELO LUSAKA, EGH.
THE GOVERNOR
COUNTY GOVERNMENT OF BUNGOMA**

PREFACE



Development planning is paramount for proper utilization of scarce resources. This Agriculture and Livestock Sectoral Plan has been prepared within the framework of the Kenyan Constitution, 2010. The County Government Act, 2012 provides for County Governments to develop plans including five year County Integrated Development Plan (CIDP), and ten year programme based County Sectoral Plans as component parts of the CIDP.

The Public Finance Management Act, 2012, outlines the key stages for County Governments planning and budgeting process and comprises integrated development planning process which should include both long term and medium-term planning; establishing financial and economic priorities for the county over the medium term; and making an overall estimation of the county government’s revenues and expenditures.

The sectoral plan covers a long term period of 10 years in order to achieve balanced and sustainable socio economic development. The plan provides comprehensive strategies to deal with issues of development and modernising trade, investment, cooperatives, industry and tourism. The plan forms a basis upon which lower level plans in the county shall be prepared which include the CIDP III and IV, MIDP, CADP, among others. The plan provides a coordinating framework which will result in more prudent use of county scarce resources and provides a standard for prioritisation of County programmes and projects.

The approach adopted during the preparation of this plan was highly collaborative, participatory and consultative and it brought on board participants from diverse backgrounds including related County Departments, Agencies, professionals, civil society, non-state actors among others with the hope that this will provide a basis for participation in the implementation of the plan.

Therefore as a county we must prioritise the implementation of this plan so as to promote equity and competitiveness, balanced development, optimal resource utilization and cultivate an integrated approach to development in order to address intertwined problems within the county.

Let us all individually and collectively commit ourselves to the realisation of the development policies and strategies contained herein and continue to build a competitive equitable and prosperous county.

A handwritten signature in black ink, appearing to read 'Monicah Salano Fedha'.

HON. MONICAH SALANO FEDHA
COUNTY EXECUTIVE COMMITTEE MEMBER
AGRICULTURE, LIVESTOCK, FISHERIES, IRRIGATION AND COOPERATIVES

ACKNOWLEDGEMENT



The preparation and publication of the County Agriculture and Livestock Sectoral Plan (CSP) 2023-2032 benefited from input of different individuals and key institutions.

I wish to thank His Excellency the Governor Kenneth Lusaka and Her Excellency the Deputy Governor Jenifer Mbatiany for overall coordination and leadership in the preparation of this plan.

The department of finance and Economic Planning under the leadership of CECM Chrispinus Barasa, Chief officers Edward Makhandia and Dina Makkokha, and Treasury Directors provided

direction and tremendous support.

Further I wish acknowledge the Sector CECM(s), COs, Directors, SWGs, and technical team for providing their invaluable technical input.

The economic planning directorate under the leadership of Ag. Director James W Wafula and Ag. Deputy Director Metrine Chonge, senior economists Peter Cheworei, Beatrice Nyambane, Evans Kisika, Cyphren Sabuni Humphrey Situma, Howard Lugadilu and the sector economist(s) are highly appreciated for providing secretariat services and input to the preparation process

Finally, I wish to thank most sincerely the various institutions (CBEF, CSOs, COG, KIPPRA, National Government MDAs, LREB and Development Partners), the County Citizenry and any other stakeholders that contributed in one way or the other to the development of this plan.

Thank you and God bless you all.

A handwritten signature in blue ink that reads "Wotia".

MR. FREDRICK WOTIA
ACCOUNTING OFFICER
AGRICULTURE, LIVESTOCK, FISHRIES, IRRIGATION AND COOPERATIVES

EXECUTIVE SUMMARY

County planning and development is one of the functions assigned to the County Governments in the Fourth Schedule of the Constitution of Kenya 2010. Article 174 of the Constitution provides the objects of devolution of government, which include, amongst others: to promote democratic and accountable exercise of power; to recognise the right of communities to manage their own affairs and to further their development; and, to promote social and economic development and the provision of proximate, easily accessible services throughout Kenya.

Part XI of the County Government Act, 2012 provides for amongst others, the principles of county planning and development facilitation; objectives of county planning; Obligation to plan by the county; integrating national and county planning; and types and purposes of county plans. Section 102 (h) of the Act underscores the relevance of planning at the county level with a view to aligning county financial and institutional resources to policies, objectives and programmes; providing a platform for unifying planning, budgeting and financing programme implementation, as well as performance review.

Counties align their development policies, programmes and projects to the national development framework. It is on this basis that this sectoral plan is prepared. The plan is organised into six chapters as follows;

Overview of the County; This section gives highlights on the county size, the overall demographics and a summary of major economic activities driving the economy of the county.

Situation analysis: discusses the environment within which the sector operates in terms of macro-economic, political (administration), socio-cultural, demographics, environmental, technological issues among others while giving factors influencing the performance of the sector. Resource management to finance its programmes for the previous ten (10) years is discussed showing clearly the sources of funds and the expenditures.

Sector Performance Trends and Achievements; an analysis of the sector performance trends based on the key sector outcomes, Sectoral Development Issues and their causes as well as any cross-cutting and emerging issues and how they affect the performance of the sector.

Sector Development Strategies and Programmes; the sector objectives and strategies in relation to development issues identified in the previous chapter.

Implementation Mechanisms; Institutions and their specific roles in the implementation of the sectoral plan. County Government institutions may include County Executive Committee, County Assembly, County Planning Unit, Council

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Sectoral Committees, County Budget and Economic Forum (CBEF), Regional Economic Blocs, Intergovernmental Sectoral Committees under Intergovernmental Budget and Economic Council (IBEC), among others. A structure for effective coordination of the implementation of the sector plan as well as the potential financing mechanism is discussed.

Monitoring and Evaluation Framework; a framework that will enable tracking implementation of the CSP and its continual review and updating is highlighted in line with the County Integrated Monitoring and Evaluation system (CIMES) as well as the County Monitoring and Evaluation Policy.

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ABBREVIATIONS AND ACRONYMS

AU	African Union
CADP	County Annual Development Plan
CBEF	County Budget and Economic Forum
CECM	County Executive Committee Member
CGB	County Government of Bungoma
CIDP	County Integrated Development Plan
CIMES	County Integrated Monitoring and Evaluation System
CO	Chief Officer
CS	County Secretary
CSP	County Sectoral Plan
GCP	Gross County Product
GDP	Gross Domestic Product
GVN	Governance
IBEC	Intergovernmental Budget and Economic Council
ICT	Information and Communication Technology
IGRTC	Intergovernmental Relations Technical Committee
ITES	Information Technology Enabled Services
KNBS	Kenya National Bureau of Statistics
MTEF	Medium Term Expenditure Framework
MTP	Medium Term Plan
NSP	National Spatial Plan
SDGs	Sustainable Development Goals
SWG	Sector Working Group

CONCEPTS AND COMMONLY USED TERMS

Activities: Actions taken through which inputs are utilized to produce outputs.

Baseline: A value that shows the initial state of an indicator at the start of a phase/ project/ programme, against which progress can be assessed or comparisons made.

Blue Economy: The use of the sea and its resources for sustainable economic development and covers both aquatic and marine spaces including oceans, seas, coasts, lakes, rivers, and underground water.

Demographic Dividend: The accelerated economic growth that may result from a decline in a country’s mortality and fertility rates and the subsequent change in the age structure of the population.

Development Issue: The key constraint/emerging concern in a sector that needs to be addressed or tapped into through various interventions and programmes.

Emerging Issues: This refers to recent occurrences/events/phenomena which might impact a sector negatively or positively. They range from environmental, policy, legal, technological, economic, political, social and cultural.

Flagship/Transformative Projects: These are projects with high impact in terms of employment creation and increasing county competitiveness and revenue generation, among others. They may be derived from the Kenya Vision 2030, the Medium Term Plans and the County Transformative Agenda/Long-term Plans.

Green Economy: An economy that aims at reducing environmental risks and ecological scarcities, and that aims at sustainable development without degrading the environment.

Inclusivity: The practice of ensuring all stakeholders are involved at all stages of the plan preparation, implementation, monitoring and evaluation processes.

Inputs: The financial, human, material and information resources used to undertake activities to produce outputs.

Mainstreaming: Integration of cross cutting actions into various stages of decision making (design, implementation, monitoring and evaluation of development policies and programmes).

Outcome Indicator: This is a specific, observable, and measurable characteristic or change that will represent achievement of the outcome. Outcome indicators include quantitative and qualitative measures. Examples: Enrolment rates, transition rates, mortality rates, customer satisfaction levels, etc.

Outcome: The intermediate results generated relative to the objective of a programme or intervention.

Output: The immediate tangible or intangible result (products, services etc) achieved directly from the implementation of an activity.

Participatory: Ensuring engagement of stakeholders in decision making at various stages of the plan preparation, implementation, monitoring and evaluation processes.

Performance indicator: A measurable variable that assesses the progress of a particular project/ programme.

Programme: A grouping of related projects and/or services performed by a Ministry, Department or Agencies to achieve a common objective. The Programmes must be mapped to strategic objectives.

Project: A set of coordinated activities implemented to meet specific objectives within defined time, cost and performance parameters/deliverables.

Result: A measurable change in state expected to be achieved from implementation of an intervention. Results are at three levels: outputs, outcomes and impact.

Sectoral Plan: Refers to a framework for identification of development issues, challenges and opportunities in a given sector with the aim of setting policy initiatives and strategies towards achievement of the set goals.

Sectors: A composition of departments, agencies and organizations that are grouped together according to services and products they provide. They produce or offer similar or related products and services and share common operating characteristics.

Sub-sector: An individual department, agency or organization that provide specific service/ product
Sustainable Development: The development that meets the needs of the present, without compromising the ability of future generations to meet their own needs.

Synergy: The benefit that results when two or more sectors work together to achieve set targets they could not have achieved at individual sector level.

Target: A level of result desired to be achieved within a given time frame.

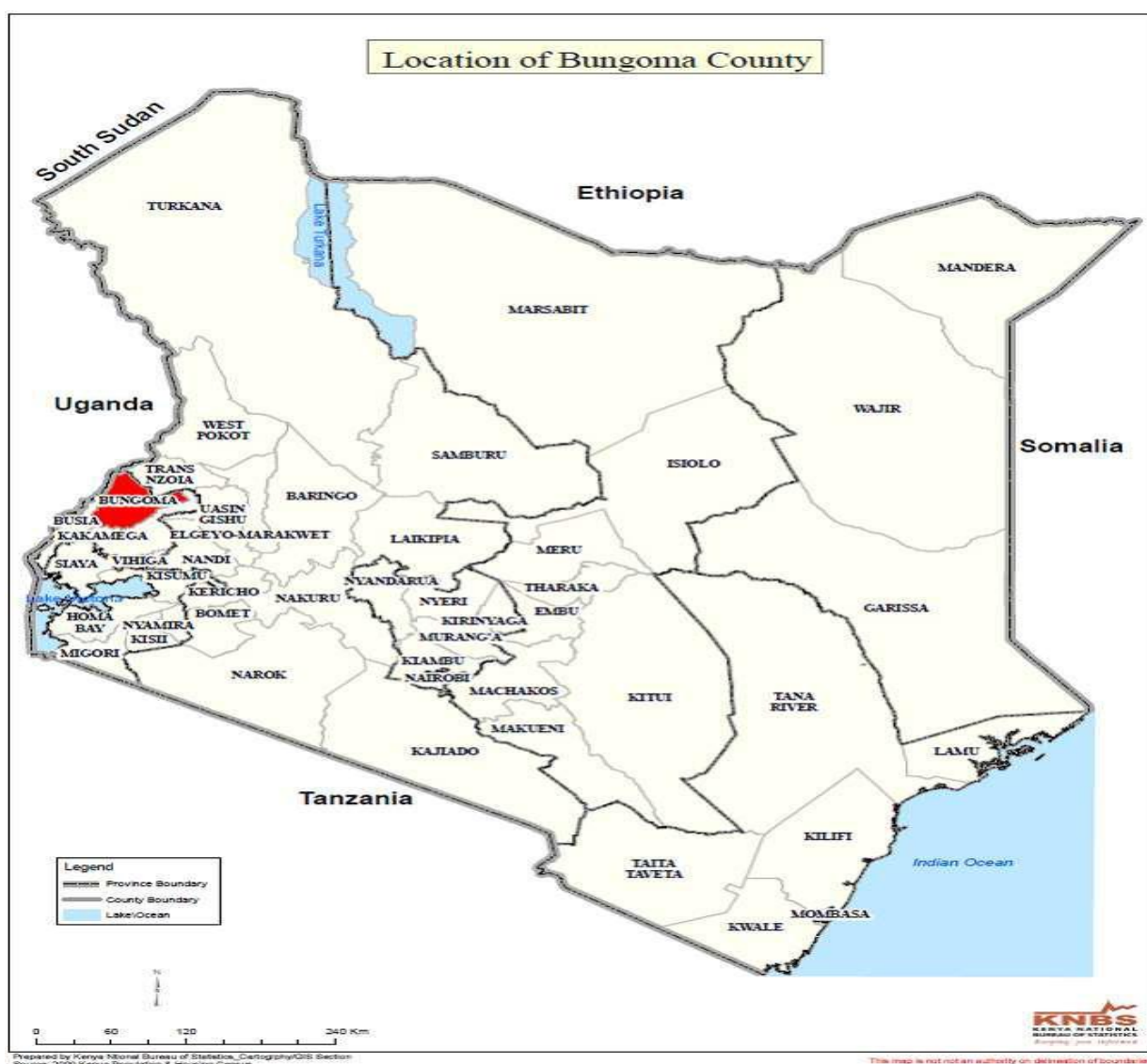
CHAPTER ONE: INTRODUCTION

1.1 Overview of the County

1.1.1 Size and Location

Bungoma County is one of the 47 Counties in the Republic of Kenya created under the Constitution of Kenya 2010. It is located in the western part of Kenya. The County lies between latitude 00 28’ and latitude 10 30’ North of the Equator, and longitude 340 20’ East and 350 15’ East of the Greenwich Meridian. The County covers an area of 3032.4 Km². It borders the republic of Uganda to the North west, Trans-Nzoia County to the North-East, Kakamega County to the East and South East, and Busia County to the West and South West.

Map 1: Position of Bungoma County in Kenya



1.1.2 Physical and Topographic features

The county covers a land area of 3032.4 km², of which 618 km² is gazetted forest reserve (the Mt. Elgon Forest reserve), 61 km² is non-gazetted forest, and 50.7 km² is Mt. Elgon National Park. The altitude of the county ranges from 1,200m above sea level to 4,321m above sea level at the summit of Mt. Elgon. The County’s major physical features include Mt. Elgon; Chetambe, Sang’alo, and Kabuchai hills; the Nzoia, Kuywa, Sosio, Kibisi and Sio-Malaba/Malakisi rivers; and waterfalls like Nabuyole and Teremi.

The county’s topography is home to scenic tourist attraction sites for instance the highest point in the county, Mount Elgon forms one of Kenya’s five water towers; wind energy can be tapped in the hills and mountain-top.

However, the steep terrain in the highland areas of the county constrains infrastructural expansion; there is soil erosion during heavy rains from Mount Elgon slopes and other hilly areas caused by human encroachment and poor farming practices on these fragile sites and the low-lying areas such as Bumula sub-county experience flooding from run-off from the hilly areas.

1.1.3 Ecological conditions

The county environment supports the interaction of a dynamic complex of plant, animal, micro-organism communities and their non-living components to form a functional unit. The most critical ecosystems in the County include forests, hills, wetlands, riparian areas, rivers and streams. These ecosystems are key natural and cultural heritage resources which support diverse biodiversity and provide natural capital for socio-economic development and support livelihoods. Land is the basis of livelihoods for a vast majority and a foundation of economic development. Existing forest, hill ecosystems and vegetation provide energy, housing for flora and fauna and are important in conservation of soil, water catchment areas and biodiversity. High rainfall favors agricultural production.

Freshwater resources and wetlands form an important part of the county’s natural resources including: the storage and retention of water for domestic, agricultural and industrial use; modifying water flows, recharging and discharging groundwater resources and diluting or removing pollutants; soil formation and retention as well as nutrient cycling as well as providing habitats for a great number of plant and animal species.

The ecosystems face numerous threats from human population pressure and land use changes for instance deforestation, housing developments, mining, uncontrolled grazing, encroachment and the effects of climate change. About 90% of the households in Bungoma County report noticing changes in long-term environmental trends (ASDSP, 2014). These include; changes in average temperatures and amounts of

rainfall (indicated by degraded soils, the drying up of wells and rivers, reduced water volumes generally, floods and landslides); deforestation; incidences of new pests and diseases; the disappearance of indigenous plants and animals; loss of biodiversity and the emergence of new plants and animals not previously found in the area.

With the ecosystems being vulnerable to natural shocks, mismanagement and unsustainable use, many are facing the threat of depletion and degradation. This will result in catastrophic and permanent change in the county’s ecology with consequent loss of agricultural productivity, industrial potential development, living conditions and aggravated natural disasters such as floods and landslides. They also greatly influence the climate of the area hence the need for the conservation.

The County Government in Collaboration with relevant stakeholders shall formulate strategies to increase forest cover to a minimum of 18% by 2030, involve and empower communities in land utilization and management as well as management of forest/hill ecosystems and water catchment/wetlands areas.

1.1.4 Climatic conditions

Historically, the County has had monthly temperatures of 15-29°C. The annual average temperature range for Bungoma is between 10-25°C, although elevation affects temperatures and most of the land area experiences an annual average temperature of more than 20°C while the highest point of Mt Elgon records less than 00C. The average wind speed is 6.1 km/hr.

The total annual rainfall has remained stable since 1985 and is expected to decrease slightly until 2040. The long rains season, which runs between February and June, is wetter than the second rainy season, experienced between late July and December. A dry season (characterized by fewer than 80 mm rainfall) is experienced from December to February. April and May receive the highest rainfall (more than 200 mm per month). The annual average precipitation in the county is 1100-1700 mm. Most of the County receives an annual average precipitation of more than 1400 mm. The eastern part of the county, primarily Tongaren and Webuye sub-counties, is the driest, receiving less than 1000 mm of average rainfall every year. The northern part of the county, covering the Mt. Elgon region, is significantly cooler than the southern parts (Mainly covering Bumula and Kanduyi sub-counties), with temperature differences on the order of 10°C or more.

1.1.5 Administrative Units

Bungoma County is divided into 9 Sub-Counties, 45 Wards and 236 Village Units. Map 2 shows Bungoma County administrative units.

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Webuye	19,606	23,364	42,642	45385	48305	50355	53595	55869
Chwele	3,018	-	9,797	10427	11098	11569	12313	12836
Kapsokwony	5,687	3,663	7,077	7532	8017	8357	8895	9272
Cheptais	3,675	0	4,419	4703	5006	5218	5554	5790
Sirisia	-	-	2,096	2231	2374	2475	2634	2746

Source: KNBS, Kenya Population and Housing Census Report, 2019

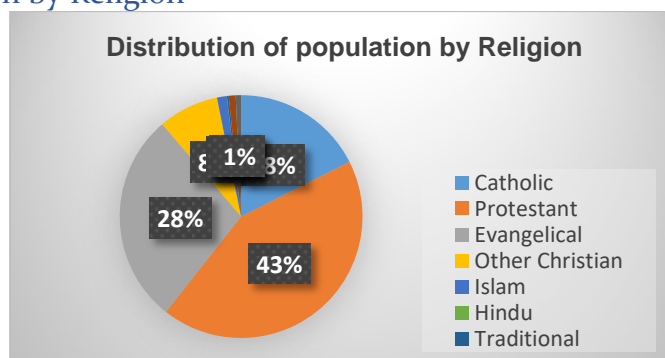
Table 3: Projection of Population by Age Group

Age Group	2019 KNBS Census population			2023 (Projections)			2027 (Projections)			2032 (Projections)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	109,105	110,069	219,174	118,563	119,610	238,173	128,840	129,978	258,818	142,948	144,211	287,160
5-9	126,822	126,486	253,308	137,815	137,450	275,266	149,762	149,365	299,126	166,161	165,721	331,882
10-14	133,033	133,921	266,954	144,565	145,530	290,094	157,096	158,145	315,241	174,299	175,462	349,761
15-19	109,337	106,485	215,822	118,815	115,715	234,530	129,114	125,746	254,860	143,252	139,516	282,768
20-24	65,615	74,162	139,777	71,303	80,591	151,893	77,483	87,576	165,060	85,968	97,166	183,135
25-29	49,457	59,132	108,589	53,744	64,258	118,002	58,403	69,828	128,231	64,798	77,474	142,272
30-34	46,615	57,000	103,615	50,656	61,941	112,597	55,047	67,310	122,357	61,075	74,681	135,755
35-39	35,762	35,486	71,248	38,862	38,562	77,424	42,231	41,905	84,135	46,855	46,493	93,348
40-44	32,035	34,866	66,901	34,812	37,888	72,700	37,830	41,173	79,002	41,972	45,681	87,653
45-49	26,584	26,841	53,425	28,888	29,168	58,056	31,393	31,696	63,089	34,830	35,167	69,997
50-54	19,025	22,101	41,126	20,674	24,017	44,691	22,466	26,099	48,565	24,926	28,057	52,983
55-59	18,428	21,266	39,694	20,025	23,109	43,135	21,761	25,113	46,874	24,144	27,863	52,007
60-64	14,478	16,289	30,767	15,733	17,701	33,434	17,097	19,235	36,332	18,969	21,342	40,311
65-69	9,746	11,977	21,723	10,591	13,015	23,606	11,509	14,143	25,652	12,769	15,692	28,461
70-74	6,750	8,655	15,405	7,335	9,405	16,740	7,971	10,221	18,191	8,844	11,340	20,183
75-79	4,028	5,840	9,868	4,377	6,346	10,723	4,757	6,896	11,653	5,277	7,652	12,929
80-84	2,841	3,896	6,737	3,087	4,234	7,321	3,355	4,601	7,956	3,722	5,105	8,827
85-89	1,629	2,503	4,132	1,770	2,720	4,490	1,924	2,956	4,879	2,134	3,279	5,414
90-94	555	848	1,403	603	922	1,525	655	1,001	1,657	727	1,111	1,838
95-99	253	465	718	275	505	780	299	549	848	331	609	941
100+	41	100	141	45	109	153	48	118	167	54	131	185
Not Stated	7	1	8	8	1	9	8	1	9	9	1	10
Total	812,146	858,389	1,670,535	882,545	932,797	1,815,342	959,047	1,013,655	1,972,702	1,064,066	1,124,654	2,188,720

KNBS, Kenya Population and Housing Census Report, 2019 (Annual Growth Rate, 2.1%)

Figure 1: Distribution of Population by Religion

Catholic	291,998
Protestant	715,732
Evangelical	467,570
Other Christian	133,854
Islam	21,687
Hindu	424
Traditional	3,884
Other Religion	15,342
No Religion	11,813



KNBS, Kenya Population and Housing Census Report, 2019

1.1.7 Major Economic Activities

Agriculture, forestry and fishing contributed the most to the Gross County Product at 44.2% in 2020, followed by Transport and Storage at 11.6% respectively. Other key economic activities include public administration and defense, education, wholesale and retail, real estate activities, manufacturing and construction. The table 4 highlights the contribution of the various economic activities in the County (KNBS, Gross County Product Reports, 2019 and 2021)

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Table 4: Gross County Product (GCP) by Economic Activities in millions, 2017 and 2020

Economic Activity	GCP (In Kshs, millions) - 2017	GCP (In Kshs, millions) - 2020	Deviation	Percent contribution to GCP 2017	Percent contribution to GCP 2020	Deviation	% contribution to National GVA and GDP-2020s	% contribution to National GVA and GDP-2020	Deviation
Agriculture, forestry and fishing	107,829	91,795	(16,034)	58.76%	44.20%	(14.56)	3.8	3.7	(0.1)
Mining and quarrying	304	355	51	0.17%	0.17%	0	0.5	0.5	0
Manufacturing	1,720	8,162	6,442	0.94%	3.93%	2.99	0.3	1.1	0.8
Electricity supply	433	760	327	0.24%	0.37%	0.13	0.3	0.5	0.2
Water supply; waste collection	1,203	1,357	154	0.66%	6.53%	5.87	2.1	2.2	0.1
Construction	4,123	6,294	2,171	2.25%	3.03%	0.78	0.9	0.8	(0.1)
Wholesale and retail trade; repair of motor vehicles	6,650	10,327	3,677	3.62%	4.97%	1.35	1.1	1.2	0.1
Transport and storage	10,388	24,093	13,705	5.66%	11.60%	5.94	1.7	2.1	0.4
Accommodation and food service activities	394	1,349	955	0.21%	0.65%	0.44	0.7	1.7	1.0
Information and communication	1,576	4,031	2,455	0.86%	1.94%	1.08	1.4	1.4	0
Financial and insurance activities	9,933	2,381	(7,552)	5.41%	1.15%	(4.26)	1.6	0.3	(1.3)
Real estate activities	9,217	9,979	762	5.02%	4.80%	(0.22)	1.6	1.0	(0.6)
Professional, technical and support services	14	3,142	3,128	0.01%	1.51%	1.5	0.0	0.9	0.9
Public administration and defense	8,742	16,869	8,127	4.76%	8.12%	3.36	2.6	2.8	0.2
Education	15,730	16,571	841	8.57%	7.98%	(0.59)	4.9	4.1	(0.8)
Human health and social work activities	3,067	4,623	1,556	1.67%	2.23%	0.56	2.4	2.1	(0.3)
Other service activities	3,761	4,286	525	2.05%	2.06%	(0.24)	4.1	2.0	(2.1)
FISIM _i	1,574	1,310	(264)	0.86%	0.63%	(0.23)	0.6	0.6	0.0
Total	183,509	207,684	24,175	96.96%	105.9%	8.94	2.4	2.1	(0.3)

Source: KNBS, Gross County Product Reports, 2019 and 2021

1.2 Background of the Sector

1.2.1 Overview of the Sector

The economy of Kenya and Bungoma County is primarily dependent on agriculture. About 80% of the total Kenyan population lives in the rural areas and are directly or indirectly engaged in a wide range of activities in crops, livestock and fisheries (ASDS, 2010).

The County Agricultural Sector is characterized by various production systems that vary in efficiency, productivity and resilience. These are extensive, semi intensive, intensive and are dependent on agro-ecological zonation. There are many stakeholders in the Sector due to its role in the economy and its rural-based nature that touches the livelihoods of many people.

In 2004, after years of stagnation and negative growth, the Kenyan Government launched the Economic Recovery Strategy for Wealth and Employment Creation (ERS), with emphasis on economic growth, wealth creation and employment as a means of eradicating poverty and achieving food security. The strategy identified agriculture as the leading productive sector for economic recovery and recognized revival of agricultural institutions and investment in agricultural research and extension as critical and essential for sustainable economic growth. The development of the sector was considered to be a top priority in poverty reduction because it was the most important economic activity relied on by the poor in rural areas for their livelihood. In addition to the ERS in 2004, the Government launched the Strategy for Revitalizing Agriculture (SRA). The sector surpassed the SRA growth target of 3.1% to reach a high of 6.1% in 2007.

However, the growth trend was interrupted in 2008 by external factors of post-election violence, global food crises, global escalation of fuel and fertilizer prices and global financial crises. In 2008, the government launched Kenya Vision 2030 as the overall national long-term development blueprint that aims to transform the country into a newly industrializing, middle- income country providing a high quality of life to all its citizens by 2030 in a clean and secure environment.

Kenya Vision 2030 identifies agriculture as one of the key sectors under the Economic Pillar expected to drive the economy to the projected 10 percent economic growth annually. It has also been identified as one of the sectors that will drive the “Big Four” agenda aimed at achieving 100% food and nutrition security. The sector is therefore central to the achievement of Vision 2030 goal of “a globally competitive and prosperous country with a high quality of life by 2030”. The sector contribution to achievement of this goal will be through promotion of an innovative, commercially oriented and modern agriculture. The sector is also expected to deliver on Kenya’s regional and global commitments such as the Comprehensive Africa Agricultural

Development Programme (CAADP), the Africa Agenda 2063 and the Sustainable Development Goals (SDGs).

The Kenya Constitution, 2010, devolved most of the functions of the Agriculture Sector to the County Governments allocating the National Government Policy Formulation, Capacity Development and Technical Assistance functions.

1.2.2 Sub-Sectors and their Mandates

The Agriculture sector has several sub sectors with respective mandates and are outlined herein:

Crops Sub Sector

The mandate of the crops sub-sector is to ensure sustainable development of industrial crops, food crops and horticultural crops for food security and socio-economic development. The sub sector facilitates improved production and productivity of crops for food security and agricultural raw materials, value addition and access to efficient markets. This involves; development and management of policies, bills and regulations; development and management of agricultural land resources inventory; compliance to national and international phyto-sanitary standards; crop research and development; agricultural mechanization development and management; agricultural/farmer training; land consolidation policy for agricultural benefit; agricultural insurance; farm input support and bio-safety management; enforcing of agricultural extension services standards; continuous capacity development of agricultural staff; and continuous stakeholder engagement.

Irrigation Sub Sector

To promote: the development of irrigation infrastructure; sustainable farmer-owned and managed irrigation and drainage projects; and promote adoption of irrigation technologies to enhance agricultural productivity. This will supplement the rain fed cultivation of crops to boost food security in the county.

Livestock Sub Sector

The mandate of the sub sector is to promote sustainable development of livestock for food security and socio-economic development through commercialization of livestock value chains. This involves: development and management of livestock policies, bills and regulations; livestock research and development; development of livestock extension services; livestock marketing; range development and management; livestock branding and value addition.

Veterinary Services Sub Sector

The veterinary sub sector is tasked with development and management of veterinary policies, bills and regulations. This aims to prevent and control livestock diseases and

pests/vector to safeguard human health, improve animal welfare, increase livestock productivity and ensure high quality animals and their products to facilitate domestic and export trade.

Fisheries Sub Sector

The sub sector is mandated to facilitate the exploitation, utilization, management, development and conservation of fisheries resources as well as aquaculture and undertake research in fresh water fisheries. It also involves development of the fisheries and the blue economy value chains through: fisheries policy development and management; development of fisheries bills and regulations; fisheries licensing; fisheries marketing; fish quality assurance; development Promotion of technical cooperation and continuous stakeholder engagement; development of fisheries value chain associated infrastructure; protection of aquatic ecosystem; and promotion of the county as a centre for agro-based blue economy.

1.3 Rationale for the County Sectoral Plan

The constitution of Kenya provides for a devolved system of governance that has led to development planning at both levels of government. County government development planning framework constitutes of County Sectoral Plans (CSPs), County Integrated Development Plans (CIDPs) and County Annual Development Plans (CADPs) which are linked to the Kenya Vision 2030 and its MTPs.

1.3.1 Legal Framework for the Preparation of the County Sectoral Plans

The legal basis for the preparation of the county Sectoral plans include:

County Government Act, 2012

The County Government Act, 2012 Section 107 specifies the types and purposes of county plans. These plans include County Integrated Development Plans, County Sectoral Plans, County Spatial Plans, and Cities and Urban Area Plans. The plans shall guide, harmonize and facilitate development and shall be the basis for all budgeting and spending in a county.

Specifically, Section 109 of the Act states that a County department shall develop a ten- year county Sectoral plan as component parts of the county integrated development plan. The County Sectoral plans shall be programme based, the basis for budgeting and performance management and shall be reviewed every five years by the county executive and approved by the county assembly, but updated annually.

In order to strengthen development planning at the county level, Section 54 of the County Government Act, 2012 requires that the county establishes the county intergovernmental forum that will be in charge of harmonization of services rendered, coordination of development activities and intergovernmental functions in the county.

Public Finance Management Act, 2012

The Public Finance Management Act, 2012 Section 125 provides for stages in the county budget process. The key stages for county governments planning and budgeting process in any financial year shall consist of, among others: integrated development planning process which shall include both long term and medium term planning; planning and establishing financial and economic priorities for the county over the medium term; and making an overall estimation of the county government’s revenues and expenditures.

Section 126 of the Act provides that every county government shall prepare a development plan in accordance with Article 220(2) of the Constitution, that includes: strategic priorities for the medium term that reflect the county government’s priorities and plans; a description of how the county government is responding to changes in the financial and economic environment; and programmes to be delivered with details for each programme of the strategic priorities to which the programme will contribute, the services or goods to be provided; measurable indicators of performance where feasible, and the budget allocated to the programme.

Section 137 of the Act provides for the establishment of County Budget and Economic Forum (CBEF) to facilitate county budget consultation process and provide means for consultation by the county government on the preparation of county plans. In addition, section 187 of the Act provides for the establishment of the Intergovernmental Budget and Economic Council (IBEC) that shall among others provide a forum for matters relating to budgeting, the economy and financial management and integrated development at the national and county level.

Urban and Cities Act, 2011

Section 37 (1) of Urban and Cities Act, 2011 states that a city or urban area integrated development plan shall be aligned to the development plans and strategies of the county governments. In addition, section 36(2) states that an integrated urban or city development plan shall bind, guide and inform all planning development and decisions and ensure comprehensive inclusion of all functions.

Intergovernmental Relations Act, 2012

Section 7 of the Intergovernmental Relations Act, 2012, establishes the Summit responsible for, among others, monitoring the implementation of national and county development plans and recommending appropriate action. Section 11 of the Act establishes the Intergovernmental Relations Technical Committee (IGRTC) while Section 12 gives its functions which include, among others, providing secretariat services to the summit.

Sections 19 and 20 (1) (f), (1) (g), (3) of the Act establishes the Council of Governors and gives it, among other functions, to coordinate the receiving of reports and monitoring

the implementation of inter-county agreements on inter-county projects. The Council of Governors is also mandated to establish sector working groups or committees for the better carrying out of its functions.

1.3.2 Linkage of County Sectoral Plans with Other Development Plans

For the County Sectoral Plan to be all inclusive there is a need to link it with other plans including international conventions. Such Plans include:

National Government Big Four Agenda

The national government has identified four high impact agenda that will be pursued in five years (2018-2022) which coincides with this plan period. The big four agenda entails; Food security and improved nutrition, Universal health coverage, raising the share of Manufacturing sector to 15% of GDP and delivering at least 500,000 affordable Housing units by 2022. The two levels of government will develop collaborative strategies to realize the intended objectives of this agenda. Within this sector plan, the County government has outlined a number of projects/programmes, initiatives and policies with a focus on the big four agenda.

The implementation of the “Big Four” will contribute to broad based inclusive economic growth, faster job creation and reduction of poverty and inequality

National Spatial Plan (NSP) framework

The NSP is a thirty year plan that covers the whole country and is aimed at balancing development across the country. Land is a limited resource with many competing land uses. The vision of the plan, in keeping with the Constitution and National Land Policy, is optimal productivity, sustainability, efficiency and equitability in the use of land in Kenya and the territorial space. The aim is to provide strategies and policies for sustainable exploration of the huge potential the country possesses in areas such as agriculture, tourism, energy, water, fishing and forestry. It also aims to address the issue of regional inequalities.

The NSP is expected to link different activities within the national space through integrated planning and create order for national development by giving spatial dimension to various national economic sector policies, thus reducing the wastage of Kenya’s limited resources in line with the aspirations of Kenya Vision 2030.

In view of this, the County Government has developed a County Spatial Plan that is intended to serve as a broad-based and indicative framework for development coordination. It represents shared strategic direction regarding the spatial organization of the County as a whole, and relies on the agency of the adopted spatial structure in engendering sustainable growth and development of the County.

Green Economy Strategy and Implementation Plan (GESIP)

The strategy and its implementation plan focuses on overcoming the main binding socio- economic constraints towards the achievement of the Kenya vision 2030. It targets multiple challenges including infrastructure gaps, food insecurity, environmental degradation, climate change and variability, poverty, inequality and unemployment. It will guide Kenya’s transition to a sustainable path in five thematic areas, namely; sustainable infrastructure development; building resilience; sustainable natural resources management; resource efficiency; and social inclusion and sustainable livelihood. Implementation of GESIP will be guided by a set of principles meant to boost sustainable consumption and production, namely: equity and social inclusion; resource efficiency; Polluter-Pays-Principle; precautionary principle; good governance; and public participation. This will contribute to the national implementation of the Paris Agreement on climate change and the attainment of the Sustainable Development Goals.

Transitioning to a green economy requires significant resources in terms of finance, investment, technology and capacity building. Therefore, integration of GE in the planning and budgeting processes is crucial at both the national and county level for successful implementation of GESIP.

Kenya Vision 2030 and Medium Term Plans

Vision 2030 is anchored on three key pillars: Economic; Social; and Political. Each pillar has a clearly set out objectives. The Economic Pillar seeks to attain a growth rate of 10% per annum on average with respect to the Gross Domestic Product (GDP). It also aims to sustain that growth till 2030. The sectors that have been prioritized under this pillar include: Infrastructure; Tourism; Agriculture; Trade; Manufacturing; Business Process Outsourcing and Information Technology, and Financial services.

The objective of the Social Pillar is to invest in the people of Kenya in order to improve the quality of life for all Kenyans by targeting a cross-section of human and social welfare projects and programmes. The sectors prioritized under this pillar include; Education and Training; Health, Environment; Housing; Gender, Children and Social Development; Labour and Employment; Youth and Sports.

The Political Pillar envisions a democratic system that is issue based, people centred, results oriented and is accountable to the public. The pillar is anchored on transformation of Kenya’s political governance across five strategic areas; the rule of law – the Kenya Constitution 2010; Electoral and political processes; Democracy; Public Service delivery; Transparency and accountability Security, peace building and conflict management.

The third Medium Term Plan 2018-2022 aims to achieve accelerated, high, inclusive, broad based and sustainable social economic transformation. The plan targets to

achieve the “Big Four” priority targets which include: supporting value addition; promoting initiatives that guarantee food security and nutrition to all Kenyans; promote universal health coverage and invest in affordable new housing units. The plan takes into account climate change impacts, and meeting the 17 Sustainable Development Goals (SDGs) and the goals of African Union Agenda 2063.

The Agriculture Sectoral Plan contains policies, programmes and projects including legal and institutional reforms that will supplement national government efforts to achieve the “Big Four” agenda. The Sectoral Plan will build on gains made so far in key sectors of the economy including completing projects initiated during the first phase of the sector plan. It will target not only at increasing the level of investment but also enhancing the productivity of investment, as well as raising productivity in all sub sectors of sector.

Constitution of Kenya 2010

The Fourth Schedule of the Constitution of Kenya (2010) clearly sets out the functions that will be carried out by the National government and that which will be carried out in the County governments. In view of this the Sector Plan is drawn from the fourth schedule of the Constitution.

The national government has since 2010 enacted Acts of parliament to address the issues of devolution. The main Acts include; Urban Areas and Cities Act, 2011; County Governments Act, 2012; The Transition to Devolved Government Act, 2012; The Intergovernmental Relations Act, 2012 and The Public Finance Management Act, 2012. These Acts have in effect operationalized the County Governments.

Agenda 2063 of the African Union

Africans of diverse social formations and in the Diaspora affirmed the AU Vision of “an integrated, prosperous and peaceful Africa, driven by its own citizens and representing a dynamic force in the international arena” as the overarching guide for the future of the African continent. Further, they reaffirmed the relevance and validity of the OAU/AU 50th Anniversary Solemn Declaration.

The converging voices of Africans of different backgrounds, including those in the Diaspora have painted a clear picture of what they desire for themselves and the continent in the future. From these converging voices, a common and a shared set of aspirations have emerged:

- i. A prosperous Africa based on inclusive growth and sustainable development;
- ii. An integrated continent, politically united, based on the ideals of Pan Africanism and the vision of Africa’s Renaissance;

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- iii. An Africa of good governance, respect for human rights, justice and the rule of law;
- iv. A peaceful and secure Africa;
- v. An Africa with a strong cultural identity, common heritage, values and ethics;
- vi. An Africa whose development is people-driven, relying on the potential of African people, especially its women and youth, and caring for children; and
- vii. Africa as a strong, united, resilient and influential global player and partner.

The aspirations reflect the desire of Africans for prosperity and well-being, for unity and integration, for a continent of free citizens and expanded horizons, with freedom from conflict and improved human security. They also project an Africa of strong identity, culture and values, as well as a strong and influential partner on the global stage making equal, respected contribution to human progress and welfare.

The aspirations embed a strong desire to see a continent where women and the youth have guarantees of fundamental freedoms to contribute and benefit from a different, better and dynamic Africa by 2063, and where women and youth assume leading roles in growth and transformation of African societies. The County government through this plan will develop strategies that are in line with the Africa Agenda 2063.

Sustainable Development Goals

The Sustainable Development Goals (SDGs) are a set of 17 goals, the world will use over 15 years to end extreme poverty, fight inequality and injustice, and fix climate change. Formed through extensive consultation with all levels of society, the SDGs are a comprehensive development plan to leave no person behind.

As the excerpt from the 2030 Agenda describes, the SDGs and targets are aspirational and global with each government called to; decide how the SDGs should be incorporated into national/County planning processes, policies and strategies;

- a. Set their own national/county targets guided by the global level of ambition, but taking into account national/county circumstances; and
- b. In the implementation of the Agenda build on existing commitments and in accordance with international human rights standards for the full benefit of all.
- c. In view of this, the County government will undertake the following steps in addressing the post 2015 agenda;
- d. Review existing strategies and plans and identifying areas for change: To scan and detail the landscape of existing strategies and plans at the national, sub-national and local levels and then compare against the global SDGs and targets to identify gaps and provide the basis for recommending areas for change;
- e. Making initial recommendations to the leadership of the County government: for addressing SDG gaps in existing strategies and plans whilst recognizing that

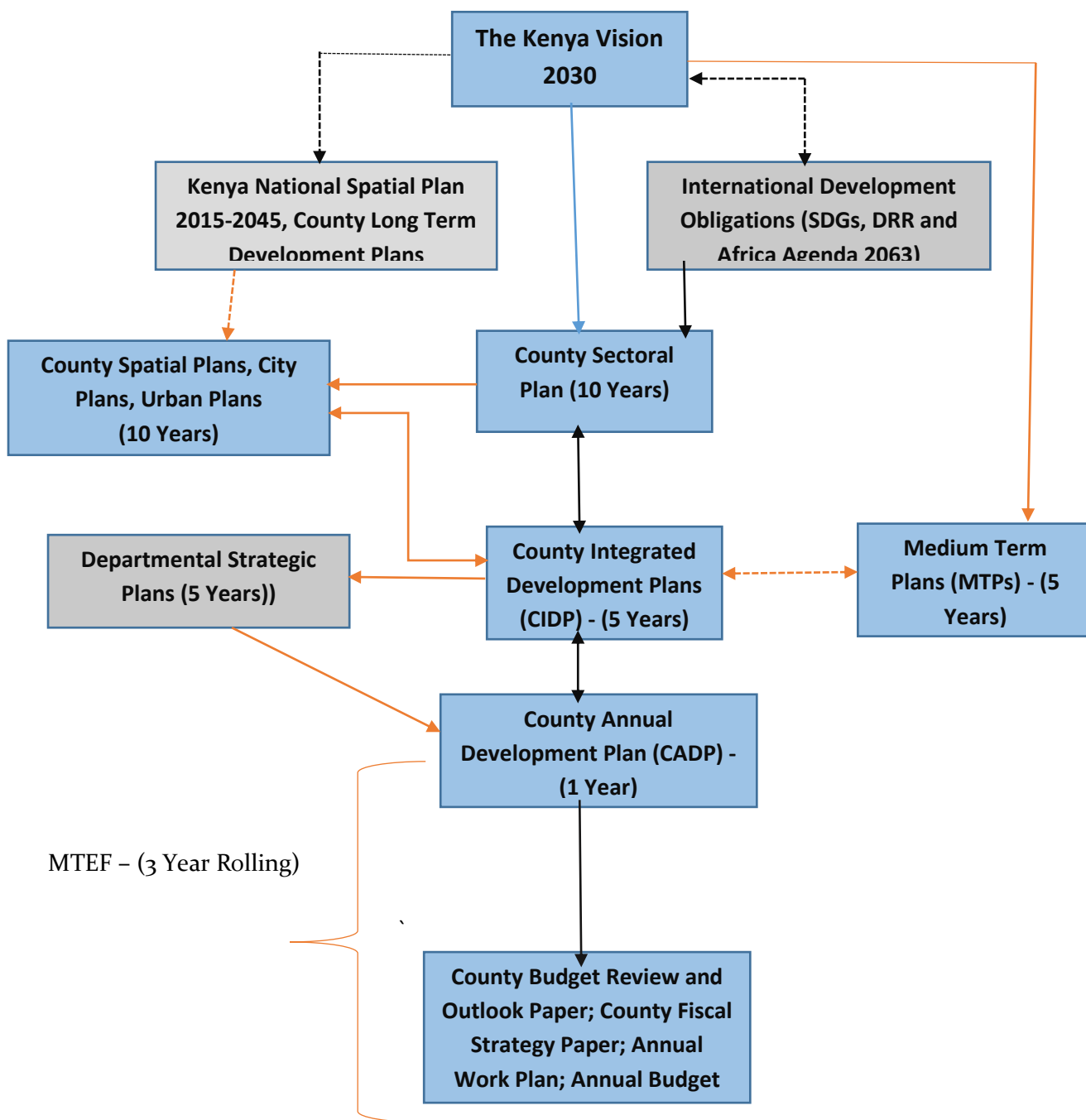
the SDGs “...are integrated and indivisible and balance the three dimensions of sustainable development: the economic, social and environmental.”

- f. Set County-relevant targets: for County-adapted and inclusive SDGs that are achievable, yet ambitious
- g. Formulate strategy and plans using systems thinking: to incorporate the recommendations and the insights from the above steps into strategies and plans and matching ambition and commitments with resources and capacities; and
- h. Appoint at least one officer to serve as the County’s SDGs champion

The goals and targets of the new agenda are in line with the Vision 2030, which undergoes review every 5 years and is the national blueprint that defines the strategies and programs that will translate into efficient, effective, and responsive actions achievable. An information management system will support performance and monitoring and reporting of results.

The County Government will continue to create opportunities for real dialogue between people about the implementation of the Post-2015 agenda, especially marginalized and excluded groups and authorities at the County and national levels by institutionalizing dialogue structures, such as debates – at parliamentary and the County assembly, and also within communities; and national/County conferences – to discuss implementation and share best practices; public forums; and meetings with key national/County decision makers.

Figure 2: CSP Linkage with Other Plans



1.4 Approach/methodology in the preparation of the sector plan

1.4.1 Steps in Preparation of the CSP

Phase I: Preliminary stage

(4) The County Executive Committee (CEC) Member for Finance and Economic Planning issued a circular to initiate the CSP preparation process. The circular clearly outlined county sectors, composition of sector working groups and their terms of reference (TORs) and timelines for accomplishment of milestones in the preparing of the CSP.

(ii) The CEC member for Agriculture, Livestock, Fisheries, Irrigation and Cooperatives constituted the Sector Working Group (SWG) for the Agriculture and Livestock Sector which was responsible for spearheading the Agriculture and Livestock Sector Plan preparation process. The Chair of the SWG was the Chief Officer for Agriculture and Irrigation while the sector economist was the secretary to the SWG. The other SWG members included officers from the departments of Crops, Livestock, Veterinary, Irrigation, Fisheries and Cooperatives and key stakeholders selected from other state and non-state institutions in the county

(iii) Sensitization sessions on the CSP guidelines and the preparation process of CSP were conducted by the County Department of Finance and Economic Planning

Phase II: Drafting Process

(i) Data collection and analysis

The SWG undertook a desktop and secondary data review on sector performance to determine the level of achievement, programmes implementation challenges and lessons learnt. Departmental reports, M&E Reports, sector related policies and laws, CIDP, Kenya Vision 2030, ASTGS, Previous Sector Plans, Community Social Audit Reports, Financial Statements, Controller of Budget Reports, Economic Surveys, National Government Agriculture Development Strategies, National and county Spatial Plans, Statistical Abstracts and other KNBS Publications were comprehensively reviewed for data collection and to generate content for the sector plan preparation process.

The SWG undertook stakeholder mapping that included relevant agriculture sector departments at the county and national levels, County Budget and Economic Forum, NGOs, Academic Institutions, Research institutions, development partners, religious institutions, private sector, Public Benefit Organizations (PBOs) and County citizens amongst other stakeholders. Public Participation Fora, Key Stakeholders’ Fora, Key Informant Interviews and Several Group Discussions were conducted to collect relevant Information and inputs from the stakeholders.

- (4) The SWG retreated for drafting workshops and consolidation of the collected data and information. A draft Agriculture and Livestock Sectoral Plan was then developed as per the guidelines.

Phase III: Validation

The draft sector plan was further subjected to a key stakeholders’ forum for input and comments for incorporation by the SWG.

Phase IV: Approval

The SWG presented the draft Sectoral Plan to the county executive committee member for Agriculture, Livestock, Fisheries, Irrigation and Cooperatives for presentation to the County Executive Committee for consideration and adoption before submission to the county assembly for approval.

CHAPTER TWO: SITUATION ANALYSIS

2.1 Sector Context Analysis

This section discusses the environment within which the sector operates. This includes macroeconomic, political (administration), socio-cultural, demographics, environmental, technological issues among others. It highlights the intra-county data variations and key factors influencing the performance of the sector. The section also discusses the existing sector policy and legal framework and how they influence the performance of the sector.

2.1.1 Macro-Economic Environment and Sectoral Trends

The Kenyan economy recovered from the crippling effects of the COVID-19 pandemic to expand by 7.5 per cent in 2021 compared to a contraction of 0.3 per cent in 2020. The recovery was mainly driven by resumption of most economic activities after the lifting of the COVID-19 containment measures instituted in 2020 to curb the spread of the virus. In 2021, all economic activities registered positive growths except Agriculture, Forestry and Fishing which contracted by 0.2 per cent. The observed performance was attributed to erratic and poorly distributed long rains as well as inadequate short rains. Agriculture remained the dominant sector, accounting for about 22.4 per cent of the overall GDP in 2021 (Economic Survey, 2022)

According to the Gross County Product Report of 2019 by KNBS, Bungoma County contributed a share of 2.3% to the national GDP over the period 2013-2017. The county's agriculture GCP contributed 3.8% to the national agriculture GVA. Agriculture is the key driver of growth in the county contributing KShs.107.829 billion of the total KShs.183.509 billion Gross County Product (GCP) in 2017 which is a GCP share contribution of 58.76%.

It is estimated that Bungoma County produces 5 million bags of maize every year. If this produce was to be processed within the county, the projected income would be Sh. 22.5 billion per year. Unfortunately, almost 80 per cent of this maize is usually processed outside the county due to shortage of processing resources. This opens up an opportunity for investors to invest on maize processing facilities in the county. Beans are grown on an approximated 60,850 hectares while coffee covers 4,965 hectares. Most of the beans harvested is sold to middlemen as there is no reliable market for the produce. Sugarcane farmers are also exploited by middlemen since the sugarcane mills have not been operating in a stable condition. Annual livestock product production in 2021 was estimated at 94.742 million litres of milk, 5.66 million Kgs of beef, and 3.2 million trays of eggs while approximately 29 tonnes of fish was produced.

2.1.2 Political (Administration) and Coordination

Bungoma County is divided into 9 Sub-Counties, 45 Wards and 236 Village Units. The County Government of Bungoma is divided into the Executive and County Assembly respectively. The County is headed by an elected Governor while the Wards have MCAs who like the governor are elected on five year terms. The County Executive is in charge of revenue collection, allocation of such revenue to programmes and implementation of programmes while the County Assembly provides representation, legislation and oversight. The assembly also approves county budgets, development plans, laws and vets executive appointees.

Agriculture is a devolved function after promulgation of the Constitution of Kenya, 2010 and establishment of County Governments in 2013. The National Government is mandated to create an enabling environment for agricultural development through development of policies, regulatory frameworks, and standards; capacity development for County Governments; research; development of information management systems and provision of vital statistics; and monitoring and evaluation in the sector. The various subsectors are administratively placed under the County Department of Agriculture, Livestock, Fisheries, Irrigation and Cooperatives which is headed by a County Executive Committee Member. There are three chief officers responsible for Agriculture and Irrigation, Livestock and Fisheries, and Cooperatives Development respectively. The subsectors namely; Agriculture (Crops), Livestock, Veterinary, Fisheries, Irrigation and Cooperatives are headed by county directors with technical and extension officers under them.

The National Government in collaboration with County Governments established a framework for coordination and engagement within the sector. The framework comprises of the Intergovernmental Forum (IGF) on agriculture, livestock, and fisheries for policy direction; the Intergovernmental Secretariat (IGS) for implementation of the Forum resolutions and four Intergovernmental Thematic Working Groups (ITWGs). In addition, the ITWG operationalized are; Policy, Legislation and Standards; Projects and Inputs, Food Security Extension and Capacity Development; Monitoring, Evaluation and Communication. Through collaboration, Joint Agricultural Sector Consultation and Coordination Mechanism (JASCCM) and County Agriculture Sector Consultation and Coordination Mechanism (CASCCM) were developed and operationalized.

Enhanced support for functionality of institutions geared towards promoting transparency and accountability has led to establishment of M&E systems and improved accountability.

2.1.3 Socio-Cultural

The County historically is inhabited by the Bukusu, Tachoni, Batura, Sabaot, Iteso, Ogiek and other Kenyan communities who reside side by side in peace. The County is

generally cosmopolitan and has good representation of both local and foreign expatriates.

Main crops produced include maize, beans, finger millet, sweet potatoes, bananas, sorghum, Irish potatoes and assorted vegetables. Sugar cane, cotton, palm oil, coffee, tea, sun flower and tobacco are grown as cash crops in the County.

The county has a poverty rate of 35.7% and food poverty rate of 32.4% (Basic Report on Well Being in Kenya, 2016). Low adoption of agricultural technologies hence low Sectoral productivity is partly attributable to the high poverty rate.

2.1.4 Demographics

The County’s population currently stands at 1.72 million people. Age cohorts 15-34 represent 33.16% of the County’s population thus raising the need to plan for their needs including nutrition and employment opportunities, while age cohorts 0-14 represent 48.49% of the County’s population which calls for targeted investments in early quality nutrition, safety and well-being. The urban population in the County stands at 10% and could reach 15% in the medium term, with sustained rural-urban migration. The population projections, proportionately informing the current and future demand for food and employment.

The increasing population and urbanization puts pressure on agricultural land in the county. This has led to increased conversion of agricultural land into other uses, increased sub-division of land into uneconomic units, and environmental degradation such as encroachment into riparian areas and forests for agricultural activities. This therefore calls for enhanced interventions in safeguarding sustainable food and nutrition security in the county and the provision of agri-jobs especially for the youth.

2.1.5 Environmental and Climatic Conditions

There is a linkage between environment, land use patterns, poverty and climate change. The main environmental hotspots in the County include; urban areas and towns, Markets, Mount Elgon forest, Chetambe hills, Sang’alo hills, Riparian areas, food basket zones in Tongaren, schools and institutional spaces and quarrying areas.

The high population pressure in the County has led to encroachment on wetlands, riverbanks and protected forests for farming and settlement purposes. This has led to poor quality and quantity of water resources, increased intensity of flash floods, river bank erosion and sedimentation which is a major cause of eutrophication. This has led to reduced quality of aquatic and terrestrial life.

Climate change has resulted in unpredictability and variation in the amounts and intensity of rainfall experienced in the County. For instance, the onset of long-rains sometimes delays to April from the expected March, while the short rains persist way into November and December, thus leaving farmers guessing as to whether or not to

farm one or two seasons. The County is prone to climate related disasters such as floods, lightening, heavy storms and landslides. Their effects include; destruction of settlements and sources of livelihoods. To mitigate these disasters and hazards and enhance adaptation, the County Government and Sectoral stakeholders should promote climate smart agricultural practises.

2.1.6 Agro-Ecological Zones (AEZ)

The County has three major agro-ecological zones suitable for agricultural production. These are: 1. The Upper Highland, 2. The Upper Midland and 3. The Lower Midland zones. These zones are endowed with fertile well drained soils suitable for agricultural production, favourable climatic conditions with bimodal rainfall of 1600-2000mm p.a, with temperatures ranging between 25 – 30°C. The Upper Highlands support the conservation of forests and production of crops such as tea, irish potatoes, peas and some vegetables. The Upper Midlands support the production of coffee, tea, maize, bananas, horticulture and dairy. The Lower Midlands support the production of a wide variety of crops due to the high temperatures and humidity which include maize, sugarcane, coffee, horticulture, tomatoes, onions, cotton, tobacco, root crops, sorghum, fruits, livestock, vegetables and oil crops.

Table 5: AEZ of Bungoma County

Zone	Agricultural Activity	Soil type
Upper highlands (UH)	UH ₁ – Moorlands UH ₂ – Heath lands UH ₃ – Forests	Moderately deep, dark reddish brown, stony clay loams and friable clay loams,
Lower Highlands (LH)	LH ₁ (Tea/, dairy, wheat, maize, pyrethrum) LH ₂ , and LH ₃ (Coffee, tea zone)	Brown to dark brown acrisols
Upper midlands (UM)	UM ₁ (Marginal sugar cane zone) UM ₂ (Coffee, maize zone) UM ₃ (Sunflower, maize zone) UM ₄ (Cotton, sugarcane zone)	Red dark to red nitisols, ferrosols, and brown to dark brown acrisols
Lower midlands (LM)	LM ₁ (Cotton zone) LM ₂ (Marginal sugar cane zone)	Brown friable sandy clay loams and dark yellowish brown sandy

Source: *infonet-biovision.org*, FMHB 2005

2.1.6 Natural Resource

The County has 2,880.78 Km² of arable land. Land uses include: Agriculture, forestry, mining, human settlements, business, social and public amenities. Land is also used as

collateral to obtain credit as well as for aesthetic purposes. Spatial Planning should be emphasized to enable sustainable utilization of land and air spaces. In addition the County should set aside land at strategic locations for future public and private investments. The County needs to develop a comprehensive land policy to inform sustainable decisions on land use.

The County is home to Mt. Elgon, which is one of the 5 water towers in the country. Irrigation and blue economy potential in the County can be realized by harnessing the waters of river Nzoia and all rivers that originate from Mt. Elgon including Terem/ Kuywa, Kibisi and Lwakhakha/ Malakisi

2.1.7 Land Tenure

The County has two major land tenure categories namely Public land and Private land. The land tenure system in the County is predominantly free hold and would encourage investment and development. However, this is not properly utilized. Gender considerations in decision making in land matters tends to be discriminatory and is done by men while most farm work is done by women. There is need to harmonize Kakamega and Bungoma Land Registries and facilitate subdivision, and ownership of land in the County.

2.1.8 Production Characteristics

2.1.8.1 Production Systems

The average land holding in the County is 0.6-2ha for small scale farmers which account for over 90% of land holding and over 75% of the total agricultural output and 70% of the total marketed output respectively. Medium and large scale institutional farms range from 4- 50ha. This implies that land sizes are declining due to fragmentation of land into uneconomical units/parcels. This calls for a change of value system and attitudes towards land use. There is need to control fragmentation of land and also enforce the regulations on agrarian zones within the framework of National Land Policy.

2.1.8.2 Irrigation, Drainage and Water Storage Situation in the County

The County has an elaborate network of permanent rivers such as Nzoia, Kuywa, Khalaba, Sio, Kibisi, Kimilili, and their tributaries, springs, dams and streams. The area under irrigation and drainage is approximately 100Ha and 400Ha respectively spread all over the County. Kuywa and Kamusinga smallholder irrigation projects were developed and some farmers are currently using the water to irrigate their crops. Individual farmers have been carrying out small scale irrigation along water bodies. Drainage projects developed for crop production include Sitila/Nalondo, Siritanyi and Matisi. Several dams and water pans have been identified for construction and rehabilitation to enhance water storage for irrigated agriculture. More investment is therefore required to develop irrigation infrastructure, technology transfer and marketing.

2.1.8.3 Agricultural Production

Crop Production

The main crops in the County are classified into three major categories; namely Food Crops, Industrial crops and Horticultural Crops.

4. The major food crops are further classified into Cereals, Pulses, Root and Tubers. Cereals are the main energy foods therefore constitute a large part of the food crops. These include maize, Sorghum, Rice and Wheat. The major challenges in cereals production is high cost of inputs, disease and pest incidence including Fall Army Worm Maize and Stalk Borer in Maize among others. These factors have affected the production and productivity of Maize. There has been a general increase in maize production, with corresponding production increasing from about 3 million 90 kg bags in 2014 to 5 million bags in 2020. However, maize production and productivity is not at optimal level which is attributable to factors such as high incidence of pests and diseases, low access to certified farm inputs, inadequate extension services, and post-harvest losses amongst other factors.

Among the pulses, beans are usually intercropped with maize in both long and short rains seasons throughout the County. The main constraints in Bean production is unavailability of certified seed and pest and diseases which grossly reduces yields. In 2014, the area under beans was 67,620Ha with a production of 384,953 (90 kg) bags whereas in 2020 the area was 68,105Ha with a production of 414,500 (90 kg) bags.

- ii. The major industrial crops are sugarcane, coffee and Tea. Sugarcane is produced by farmers both under contract with sugar companies which account for 80% and also privately. The main issues in cane farming include delayed payments for delivered cane, low yields, low earnings, poor agronomic practices and high cost of cane development for the contracted farmers. In 2014, the area under cane cultivation was 26,800ha realizing 1,072,000MT whereas in 2020 the area under cane cultivation was 24,857 ha, which translated into a yield of 856,700MT.

The area under tea has steadily increased through provision of affordable planting materials, improved agronomic practices and the plan to eventually establish a processing facility within the County. Currently, the main impediment to tea growing is the long distance to the nearest tea factory.

Coffee is the key industrial crop in the county having been introduced during the colonial era. The County hosts a Coffee Field Research Station at Namwela in Sirisia. However, the crop has performed poorly due to pest and disease incidences, poor prices occasioned by world market price fluctuations and poor governance in the cooperative movement. In 2014, a total of 3,800 ha were under coffee cultivation with a production of 15,200MT of parchment while in 2020 the area was 4,840ha and

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production at 15,011MT of parchments. During the plan period, efforts have been made to provide affordable seedlings, improve management, establish processing facilities and enhance coffee marketing by farmer societies.

iii. The Horticulture subsector is a key contributor to the economy of Bungoma County. The major crops under this category include vegetables (Tomatoes, Irish potatoes, kales, Onions, Cabbages and indigenous vegetables); Fruits (Bananas, water melon, pineapples, and passion fruits) and Flowers, though flower growing in the County is still quite low. The area under Banana plantation in 2014 was 2152ha which produced 34,496 MT; while in 2020 it was 4,995ha and 91,504 MT was produced. In 2014, the area under tomato cultivation was 1070ha with a production of 19,288MT and in 2020 it was 2419ha with 49,557MT. Improved export varieties for Avocado are gaining importance among our farmers as one of the cash crops in the county. The county with other partners are promoting the crop among farmers. The production increased from about 300 Ha in 2014 to a current acreage of 20550 Ha in 2020. There is great potential for horticulture development in the county. However, the subsector is faced with a various challenges, namely; low production and productivity, high cost of seeds and agrochemicals, poor agronomic practices, lack of processing facilities and overreliance on rain fed agriculture amongst others.

Table 6: Distribution of Households Practicing Agriculture, Fishing and Irrigation by County and Sub County

2019	Total HHs	Farming HHs	HHs Undertaking Crop Production	HHs Undertaking Irrigation
Kenya	12,143,913	6,354,211	5,555,974	369,679
Bungoma	358,796	280,445	269,979	6,310
Kanduyi	69,151	41,443	39,568	812
Bumula	44,954	39,540	38,672	488
Webuye East	24,873	19,688	18,959	442
Kabuchai	37,803	31,835	30,921	738
Kimilili	35,263	25,205	24,062	767
Mt. Elgon	42,400	35,539	33,549	1,547
Webuye West	32,839	26,624	25,732	511
Sirisia	25,172	22,145	21,615	320
Tongaren	46,341	38,426	36,901	685

Table 7: Distribution of Households Growing Permanent Crops by Type

2019	Farming HHs	Tea	Coffee	Avocado	Citrus	Mango	Coconut	Macadamia	Cashew nut	Khat
Kenya	6,354,211	476,613	478,936	966,976	177,445	796,867	90,952	195,999	61,664	134,148
Bungoma	280,445	2,047	37,773	73,765	5,268	54,581	-	2,428		

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Table 8: Distribution of Households Growing Other Crops by Type, County and Sub County

County/Sub-County	Total HHs	Farming HHs	maize	sorghum	rice	potatoes	beans	cassava	sweet potatoes	wheat	green grams	banana	cabbages	tomatoes	onions	groundnuts	millet	water melons	kales	sugarcane	cotton
Kenya	12,143,913	6,354,211	5,104,967	904,945	50,484	1,170,170	3,600,840	1,050,352	1,134,102	67,720	571,426	2,139,421	490,588	410,224	707,182	480,812	540,353	84,077	1,916,896	654,468	22,920
Bungoma	358,796	280,445	262,083	28,889	-	40,882	222,747	72,760	102,940	7,644	20,851	160,195	11,059	19,364	17,992	93,242	27,667	2,975	96,113	57,105	2,169
Kanduyi	69,151	41,443	38,314	4,726	-	6,961	31,823	12,916	17,632	1,084	2,372	22,809	1,227	3,173	2,177	17,721	3,707	499	15,569	12,199	403
Bumula	44,954	39,540	38,051	4,807	-	6,096	33,223	16,773	16,223	1,004	1,814	19,850	855	2,703	1,510	17,551	3,610	645	11,074	4,496	462
Webuye East	24,873	19,688	18,256	1,493	-	1,926	14,731	3,953	8,274	595	1,149	11,893	512	864	746	6,043	2,087	184	7,232	7,810	115
Kabuchai	37,803	31,835	30,119	4,485	-	4,099	27,450	8,297	12,083	1,241	4,436	20,570	864	1,729	1,065	17,003	4,904	343	9,915	5,455	242
Kimilili	35,263	25,205	23,356	2,139	-	2,904	19,458	5,113	8,562	547	1,769	15,762	874	932	786	6,938	2,002	267	7,785	3,861	187
Mt. Elgon	42,400	35,539	31,800	1,700	-	11,689	26,888	3,271	4,889	762	1,059	16,487	4,406	3,888	8,207	2,190	1,869	173	12,732	1,240	182
Webuye West	32,839	26,624	24,971	3,511	-	2,836	21,356	8,483	13,949	919	3,581	17,086	576	1,581	1,368	13,068	3,967	240	11,067	13,160	157
Sirisia	25,172	22,145	21,201	2,853	-	2,344	19,429	6,575	7,261	461	3,689	13,195	585	2,824	831	9,058	2,162	338	7,965	1,001	236
Tongaren	46,341	38,426	36,015	3,175	-	3,227	28,389	7,369	14,067	1,031	982	22,543	1,160	1,674	1,282	3,670	3,359	286	12,774	7,883	185

Table 9: Distribution of area (hectares) of Agricultural land and Farming Households by purpose of production, County and Sub-County

2019	Total HHs	Farming HHs	Area of agricultural land (hectares)	Area of agricultural land by main purpose (hectares)		Number of farming HHs by main purpose of agricultural production	
				Subsistence	Commercial	Subsistence	Commercial
Kenya	12,143,913	6,354,211	10,032,857	8,432,113	961,501	5,637,450	506,687
Bungoma	358,796	280,445	223,269	202,494	19,091	264,247	12,829
Kanduyi	69,151	41,443	35,311	32,134	2,944	39,236	1,785
Bumula	44,954	39,540	29,874	28,346	1,342	38,444	850
Webuye East	24,873	19,688	16,750	15,765	925	18,802	662
Kabuchai	37,803	31,835	23,347	21,443	1,728	30,118	1,401
Kimilili	35,263	25,205	18,217	15,968	2,062	23,337	1,463
Mt. Elgon	42,400	35,539	30,471	26,303	3,736	31,867	2,856
Webuye West	32,839	26,624	20,963	19,331	1,532	25,210	1,132
Sirisia	25,172	22,145	17,204	16,129	922	21,217	656
Tongaren	46,341	38,426	31,131	27,076	3,901	36,016	2,024

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Table 10: Crop Production Statistics 2014 – 2020

	ACREAGE(HA)						PRODUCTION(MT)							
	2014	2015	2016	2017	2018	2019	2020	2014	2015	2016	2017	2018	2019	2020
Maize	98,074	110,370	104,407	95,323	93,484	100,195	96,605	3,193,577	3,397,627	5,238,488	5,339,067	4,283,122	4,360,923	5,030,090
Sorghum	1,725	2,712	1,763	1,402	466	2,470	298	16,105	27,147	13,900	15,200	8,644	17,292	2,380
Finger Millet	1,898	2,271	2,410	1,191	944	1,852	1,695	13,278	22,588	14,033	13,522	13,088	14,818	13,560
Rice	435	380	328	179	104	144	7	2,821	3,541	4,733	3,655	3,666	4443	105
Wheat	315	490	403	173	0	83	7	7,769	15,800	3,311	7,644	0	2083	154
Beans	67,620	69,425	63,457	79,999	80,640	60,850	57,870	387,154	384,953	164,350	436,355	554,922	127,671	520,830
Green grams	226	247	249	231	214	438	29	1,363	561	1,497	3,255	3,000	2,188	145
Sweet potato	5,845	9,523	9,174	8,229	8,480	7,817	5,130	38,400	81,376	74,687	77,888	81,806	65,467	41,040
Cassava	640	460	715	793	830	873	141	3,698	2,712	3,731	4,250	5,166	5,495	840
Arrow roots	123	95	115	113	121	122	70	359	365	453	418	460	428	280
Soya beans	377	526	522	1437	1,348	933	961	539	894	652	2,899	2,529	1,166	14,415
Sunflower	1,578	2,300	2,310	2,310	2,619	1,776	64	1,637	2,070	1,865	2,310	2,619	1,776	64
Groundnuts	884	1,149	1,111	1,041	1,047	1,430	1,462	829	1,100	902	849	1,674	1084	1,460
Oil palm	958	201	200	200	201	201	201	484	100	98	95	93	0	0
Banana	2,152	20,032	2,152	4,032	4,542	4,889	4,995	34,496	53,488	34,496	53,488	76,590	93,055	91,504
Passion fruits	71	316	71	316	230	85	52	670	2,368	670	2,368	2,082	2,452	1,023
Pineapples	53	95	53	95	56	32	21	1,054	2,030	1,054	2,386	1,600	907	650
Papaya	28	77	28	77	83	62	56	236	378	236	378	937	1262	1,008
Ground nuts	1,033	884	1,033	884	864	473	480	1,518	829	1,518	829	810	696	760
Cabbage	696	1,397	696	1,397	1,470	358	595	9,559	29,706	9,559	29,706	28,958	8,600	16,084
Kales	912	2,602	912	2,602	2,116	1039	862	9,375	23,542	9,375	23,542	24,120	10,275	16,848
Tomato	1,070	1,750	1,070	1,750	1,880	2,050	2,419	19,288	45,723	19,288	45,723	49,986	52,500	49,557
Irish potato	7,330	1,213	7,330	12,130	11,890	10,818	11,073	74,295	78,840	74,295	78,840	80,320	79,493	189,447
Bulb onion	2958	5,137	2,958	5,137	5,294	5,373	5,066	23,936	44,415	23,936	44,415	47,800	45,690	45,765
Mango	-	-	-	-	189	232	245	-	-	-	-	2,904	1,314	2,540
Avocado	-	-	-	-	164	202	2,577	-	-	-	-	3,733	2,850	2,030
French Beans	-	-	-	-	15	10	4.5	-	-	-	-	17	12	76

Livestock Production

The Livestock sector in Bungoma County comprises the following sub-sectors; dairy, poultry, beef, pig, sheep and goat, bee keeping, rabbit, emerging livestock and donkey production.

- i. The dairy sub-sector is predominantly indigenous, with a population of 149,227 exotic cattle and 267,138 indigenous cattle producing a total of 94.78 million litres of milk per year. The average production per cow per day stands at 7-10 litres for exotic herd and as low as 2 litres for the local cattle. Milk prices range from 35-60 shillings a litre and the demand for milk is very high.
- ii. Poultry is one of the priority enterprises in the county where almost every household keeps some local poultry on the farm. Approximately 3.2 million trays of eggs are produced annually. Other poultry reared include the ducks, turkeys, guinea fowls, and quails as emerging livestock. Indigenous chicken remains the dominant poultry.
- iii. There are no farmers strictly rearing animals for beef production. The bulk of the beef produced in the county comes from the local zebu animals whose performance is below average. There is a high inflow of beef animals from West Pokot County.
- iv. Pig production relies predominantly on local breeds mainly concentrated around urban areas. The cost of commercial feed still poses a big challenge resulting in formulation of home-made rations, and supplementing on swill. Beacon butcheries and Farmers Choice are the major markets.
- v. Goat Production is mainly composed of indigenous stock with few dairy goats. Dairy goat production has continued to increase with notable contribution of breeding stock by the County Government and organizations such as Western Kenya Flood Mitigation Project and Small Holder Dairy Holder Project. The demand for goat milk is high in comparison to production with a litre selling at an average of Ksh.90.
- vi. Sheep Production is one of the neglected enterprises mainly composed of indigenous stock with very few numbers of wool sheep. Poor management in terms of deworming, feeding, housing and general disease control has largely affected the performance of the enterprise.
- vii. Bee Keeping/ Apiculture performs well due to the good rainfall distribution throughout the year. This reduces cases of absconding and colony migration. The Langstroth hives are the most preferred to KTBH and log hives as a result of its higher production and easy management. The average occupancy is 85% across all the three major hives.
- viii. Rabbit and emerging livestock production is an existing enterprise whose potential is yet to be exploited. Guinea fowl production has improved steadily.

The adult fowl sells at about Kshs. 2000, the growers Kshs 1,000 and an egg at Kshs.20. Rearing Quails is another enterprise that is gaining importance among farmers. Donkey production is undertaken by farmers for the purpose of draft power. Farmers also use donkeys to transport farm produce to markets, ploughing and sporting.

The County Government has undertaken measures to improve livestock genetics through use of Artificial Insemination (A.I.) and distribution of improved dairy breeds. Several private A.I. service providers operate in the county providing up to 400 services per month. The costs of A.I. ranges from KShs.500-1,300/= per service. Most of the Government A.I. services are however hampered by inadequate facilitation. Bull schemes for dairy cattle improvement are mostly community driven. The challenges in dairy cattle improvement include; high costs and low quality of breeding stock.

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Table 11: Distribution of Households Rearing Livestock and Fish by County and Sub County

2019	Total HHs	Farming HHs	exotic cattle dairy	exotic cattle beef	indigenous cattle	sheep	goats	cam els	donke ys	pigs	indigenous chicken	exotic chicken layers	exotic chicken broilers	beehi ves	rabbi ts	fish ponds	fish cages
Kenya	12,143,913	6,354,211	939,916	167,625	2,260,439	1,299,893	1,898,887	167,666	500,682	110,383	3,337,700	194,517	79,641	201,406	124,122	22,019	3,361
Bungoma	358,796	280,445	32,344	5,254	113,733	25,103	40,859	-	4,094	5,377	161,433	6,497	2,341	3,247	2,587	1,408	217
Kanduyi	69,151	41,443	5,165	707	14,109	1,722	6,598		120	671	22,116	977	360	251	374	248	34
Bumula	44,954	39,540	2,940	596	17,744	1,592	7,213		69	1,776	23,086	963	375	161	289	265	30
Webuye East	24,873	19,688	2,272	350	8,331	1,391	2,079		3	305	11,284	331	119	281	234	69	12
Kabuchai	37,803	31,835	4,082	607	12,965	2,254	5,047		210	688	19,039	683	241	212	432	136	21
Kimilili	35,263	25,205	3,546	612	8,484	2,335	2,334		54	210	12,652	569	207	150	234	126	15
Mt. Elgon	42,400	35,539	3,935	770	16,399	6,616	5,216		3,424	506	20,079	726	195	1,333	140	162	51
Webuye West	32,839	26,624	3,166	507	11,677	1,583	3,781		8	564	16,214	632	309	172	418	114	13
Sirisia	25,172	22,145	1,656	297	9,483	1,179	6,046		176	336	13,724	467	96	141	159	93	18
Tongaren	46,341	38,426	5,581	808	14,541	6,431	2,543		30	321	23,239	1,149	439	546	307	195	23

Table 12: Distribution of Livestock Population by Type, Fish Ponds and Fish Cages by Sub County

	Total HHs	Farming HHs	exotic cattle dairy	exotic cattle beef	indigenous cattle	sheep	goats	camels	donke ys	pigs	indigenous chicken	exotic chicken layers	exotic chicken broilers	beehives	rabbits	fish ponds	fish cages
Kenya	12,143,913	6,354,211	2,209,980	559,174	13,005,664	19,307,445	28,011,800	4,640,085	1,176,374	442,761	30,320,632	5,580,766	2,914,840	1,157,162	561,351	146,006	33,492
Bungoma	358,796	280,445	62,009	9,822	279,428	78,494	109,693	-	6,058	15,930	1,191,092	73,189	28,328	13,780	12,911	6,169	559
Kanduyi	69,151	41,443	10,124	1,300	32,869	4,990	17,513		167	3,312	192,987	23,616	8,750	1,263	2,739	495	68
Bumula	44,954	39,540	5,463	1,209	45,079	3,856	17,673		122	3,573	185,036	6,373	2,732	414	1,118	479	74
Webuye East	24,873	19,688	4,263	688	19,734	3,365	4,915		4	924	74,115	3,114	1,327	1,050	972	300	22
Kabuchai	37,803	31,835	7,446	1,029	29,586	5,279	12,202		271	2,004	133,170	6,716	2,654	695	1,835	253	25
Kimilili	35,263	25,205	6,553	1,139	19,531	5,712	5,678		80	870	91,745	7,764	1,937	686	1,226	291	174
Mt. Elgon	42,400	35,539	7,823	1,677	47,252	32,034	20,588		5,135	1,217	120,111	4,122	906	6,068	598	2,226	113
Webuye West	32,839	26,624	5,785	854	27,306	3,651	9,158		10	1,674	110,491	4,441	2,205	1,345	2,333	150	16
Sirisia	25,172	22,145	2,960	539	24,285	3,173	15,882		221	918	103,155	3,858	525	556	665	159	28
Tongaren	46,341	38,426	11,592	1,387	33,736	16,434	6,084		48	1,438	180,262	13,185	7,292	1,703	1,425	1,771	39

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Table 13: Livestock Production Trends

Livestock species	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Dairy cattle	87,060	88,837	90,650	92,500	127,162	129,758	132,354	132,429	135,077	144,703	149,227
Indigenous cattle	235,298	240,100	245,000	250,000	247,604	252,657	255,183	255,049	260,150	266,185	149,227
Indigenous chicken	2,144,321	2,188,082	2,232,737	2,278,303	2,324,799	2,372,244	2,419,689	2,431,787	2,480,423	2,818,378	2,946,302
Layers	43,123	44,003	44,901	45,818	46,753	47,707	48,185	46,319	47,245	53,031	54,374
Broilers	15,908	16,233	16,564	16,902	17,247	17,599	17,874	15,742	16,056	17,734	18,162
Ducks	40,014	40,831	41,665	42,515	43,382	44,268	44,418	44,262	45,147	46,191	47,041
Turkeys	23,502	23,981	24,470	24,970	25,480	26,000	26,260	25,778	26,293	27,151	27,611
Geese	13,347	13,620	13,898	14,181	14,471	14,766	14,914	14,949	15,248	15,528	15,843
Guinea fowl	1,702	1,737	1,772	1,808	1,845	1,883	1,901	1,954	1,993	3,035	3,151
Dairy goats	5,505	5,617	5,732	5,849	5,968	6,090	6,152	6,129	6,251	7,232	7,461
Meat goats	102,897	104,998	107,140	109,327	111,558	113,835	114,973	116,813	119,149	121,291	124,792
Sheep	112,442	114,737	117,079	119,468	121,906	124,394	125,639	126,209	128,733	132,164	135,409
Pigs	15,293	15,606	15,924	16,249	16,581	16,919	17,089	17,260	17,605	18,284	19,700
Rabbits	38,611	39,399	40,203	41,024	41,861	42,715	43,141	41,847	42,684	45,689	46,499
Donkeys	4,341	4,430	4,520	4,613	4,707	4,803	4,828	4,852	4,949	11,597	12,457

Table 14: Livestock Product Production Trends

Products	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Milk (Lts)	82,837,384	84,441,778	86,077,246	87,744,389	94,119,940	95,942,854	97,738,841	99,793,972	106,425,833	93,518,772	94,742,892
Beef (Kg)	2,255,746	2,299,436	2,343,971	2,389,369	2,435,646	2,482,820	2,532,476	2,580,593	2,629,625	4,326,759	5,668,382
Chevon(Kg)	56,852	57,953	59,076	60,220	61,386	62,575	63,827	65,039	66,274	160,148	223,559
Mutton(Kg)	121,462	123,815	126,213	128,657	131,148	133,689	136,363	138,955	141,593	166,014	303,858
Pork (Kg)	65,530	66,799	68,093	69,412	70,756	72,127	73,569	74,967	76,392	21,925	689,360
Rabbit meat (Kg)	3,360	3,426	3,492	3,560	3,628	3,699	3,773	3,845	3,918	4,804	39,470
Poultry meat (Kg)	393,455	401,076	408,844	416,762	424,834	433,062	441,723	450,116	458,668	920,450	1,659,977
Eggs (trays)	1,662,837	1,695,043	1,727,873	1,761,338	1,795,452	1,830,226	1,866,831	1,902,300	1,938,444	3,025,074	3,195,622
Honey(kg)	143,549	146,329	149,164	152,053	154,998	158,000	161,160	164,222	167,342	386,481	388,962

Fisheries

- i. The County has high potential for fish farming as it is endowed with numerous rivers, streams, dams and springs that are used for fisheries activities. The County also receives substantial rains that can be tapped to develop the fisheries subsector. The fisheries department has been involved in managing, exploiting, utilizing, development of fisheries resource and has developed numerous dams as part of promoting capture fisheries.
- ii. The Government established the Fish Farming Enterprise productivity Programme (FFEPP) in 2009 which is one of the flagship projects under vision 2030. The Programme constructed and stocked 325 ponds within each of the six previous constituencies giving a total of 1,950 new ponds with coverage of 585,000m². Most of these ponds however became non-operational over time due to poor access to fish inputs and poor aquaculture techniques by beneficiaries. The total number of fish farmers in the county stands at 36,890 farmers with 44,721 operating ponds covering 134,163,000m². Total number of stocked ponds is 227 covering 68,100M² as of 2018. Since the inception of FFEPP Programme, ponds production increased from 5.52 tonnes to 81.60 tonnes in 2013 while total quantity of fish harvested stood at 29,084 tonnes in 2018.
- iii. The County Government has developed Chwele Fish Farm to be a fisheries training centre and to offer inputs especially fingerlings to farmers at subsidized prices. Kimilili, Bumula and Webuye sub counties were given animal feed mills by Ministry of special Programmes to address the issues of fish feed and other livestock feeds. The feed mills are not adequately exploited due to lack of raw materials, group dynamics among other reasons.

The fisheries sub-sector in the county faces a series of challenges which include; Inadequate public and private investment in the sub-sector, inadequate technical personnel, high cost of feeds and fingerlings (inputs), lack of organized marketing strategies and poor sector coordination.

2.1.9 Food and Nutrition Security Situation

The National and County Governments have responded to food security crises through three major policy interventions. These are Supply, Price and Income related policies as outlined below.

2.1.9.1 Supply Related Policies

- i. Subsidy on farm inputs, especially fertilizer and maize seed purchased and distributed to vulnerable farmer households for free by the county government and subsidised fertilizer issued by the State Department of Crops through the National Cereals and Produce Board (NCPB).
- ii. Improvement of research and extension services and improving their linkages.

- iii. Provision of credit for farming by Agricultural Finance Cooperation and other financial institutions.
- iv. Improvement of rural infrastructure especially road and energy network.
- v. Development of agricultural markets and agri-business skills.
- vi. Improvement of the management and use of natural resources, especially water for irrigation.
- vii. Allowing for imports of tax free maize and ban on exports.
- viii. Providing farmers with planting materials and seeds, especially of the orphan crops-drought tolerant which can be grown in drier seasons.
- ix. Encouraging diversification of crops planted, as well as diversification of eating habits to incorporate other foods and avoid over-reliance on maize.
- x. Improving the conditions under which food relief organizations operate to facilitate movement of relief to needy people.
- xi. Private sector initiative to mobilize citizens to contribute to the food relief kitty

2.1.9.2 Price Related Policies

- i. Involvement of NCPB in the purchase of maize from farmers at prices higher than market prices to provide incentive to producers.
- ii. Providing subsidy to maize millers to bring down the consumer retail prices of the maize flour (Price subsidy to consumers).
- iii. Raising the levels of the strategic food reserves to about 8 million bags (cereals and Pulses) of 90kg each held by the NCPB in order to stabilize the Cereals and Pulses prices.
- iv. Providing a fund to purchase livestock from the drought stricken areas.
- v. Allowing private sector to import maize tax free.

2.1.9.3 Income Related Policies

- i. Government’s enhanced efforts to contribute to the costs of social amenities e.g the free education Programme, reduced costs of health services at public facilities, releases income to spend on food.
- ii. The Government transfer of funds for development at the grassroots – constituency development fund, Ward Based Projects et cetera,
- iii. Establishment of producer and marketing associations for farm produce.
- iv. Provision of social safety net mechanisms e.g issuance of monthly stipends to the vulnerable members of the community, that is, the elderly, orphaned and PLWDs.

2.1.10 Marketing and Processing

The bulk of agricultural produce from the County is marketed within and out of the County in raw form except for the structured sugarcane industry. As a result, farm

incomes have remained low. Bungoma County Agriculture Sector has adopted value chain approach which emphasizes the contribution of all services and players including production, input supply, service provision, processing, and marketing of produce and products. This will ensure realization of employment creation, an increase in incomes and poverty reduction.

Market infrastructure development especially roads and marketing shades has greatly improved thereby facilitating movement and marketing of agricultural produce and products. Market information through established sites such as Kenya Agricultural Commodity Exchange (KACE), National Agricultural Farming Information System (NAFIS), among others, has ensured market access for the agricultural information that is timely, accurate and relevant to the farmers.

2.1.11 Farmer Organizations

Farmer organizations in the County have played a key role in the development of agriculture through technology transfer, purchasing of farm inputs, bulking, value addition and marketing of agricultural produce. These are both from the private as well as the public sectors. Improving their role and capacity will enhance performance of the sector now and in future. The Cooperative movement though weak in its operations still contributes substantially to organizing farmers and providing services

2.1.12 Value Addition

Processing and value addition is currently limited to agro-based factories in Sugarcane, Dairy, and Coffee sub-sectors. Development and promotion of value addition at farm and commercial levels will improve farm incomes. The promotion of cottage industries in the rural areas is low due to lack of entrepreneurship, appropriate technologies and high cost of energy.

2.1.13 Agricultural Research

Bungoma County is served by both National and International Research Centers with distinct and complementary mandate. These include Kenya Agricultural and Livestock Research Organization based at Kitale, Kakamega, Alupe, and Kibos, Kenya Sugar Research Foundation, Coffee Research Foundation, Tea Research Foundation, Kenya Seed Company, KEMFRI, ICRAF, ILRI, as well as other private accredited institutions such as seed and agro-chemical companies.

2.1.14 Agricultural Extension, Training and Information Services

Agricultural Extension Services are offered by both the private and public sectors including the Department (DoALFI&C), NGOs, CBOs, FBOs, Cooperatives and agro-based companies. The extension service is vital in sharing of knowledge, skills, technologies, agricultural information and linkage to other sectors of the economy. Extension Service is one of the critical input required in the transformation of

subsistence farming to commercial agriculture, promoting household food security, improving incomes and poverty reduction. There is need for coordination and harmonization of extension services. This can be achieved by establishing a sector coordination forum and use of participatory approaches such as farmer field schools, field days, demonstrations, exhibitions, trade fairs and shows as the mode of extension. Innovative methods of technology transfer and dissemination such as setting up of ICT platforms are critical and in this regard, the provision of ICT equipment through enhanced budgetary allocation is a necessity.

2.1.15 Credit and Inputs

Credit

Credit facilities through financial institutions such as banks, micro financing, SACCO's and digital lending platforms are available usually at competitive interest rates. However, there is still a high default rate due to poor credit management. Majority of the farmers in the county are risk averse and lack the necessary credit management knowledge and skills. Institutional credit tends to be repaid well only where programs are carefully coordinated by external institutions and support systems particularly on input distribution and product marketing.

Farm Inputs

Farm inputs (seed, fertilizers, agrochemicals, equipment, and breeding stock/semen) though available are not affordable to a majority of farmers. Accessibility to these inputs is still a problem particularly to a majority of farmers who live far from urban centres due to poor distributor and stockiest network.

2.1.16 Agricultural Mechanization Services

The level of Farm Mechanization in the county is generally low. The situation is worse in the South of the county. Most of the farm operations in Sirisia and Bumula are by hand or animal power. Use of tractor is rare except by cane growing farmers. The high cost of farm machinery services is due to unavailability of the machinery and high poverty levels. The variations in the cost of farm operations between the Southern part of the County and the Northern are significant. Land preparation per acre in the South based on 2019 prices ranged from 2000/- for hand labour, 3000/- for ox drawn and 4000/- for tractor whereas in Tongaren and Mt. Elgon they were 2500/- for hand labour, 2800/- for oxen and 3000/- for tractor.

Mechanization of agriculture is necessary to reduce drudgery, increase efficiency, and incomes. The County Government through the Tractor Hire Service supplements the private sector by providing affordable, quality and timely tractor services to farmers in the County though amidst operational challenges, e.g. inadequate Tractors and Equipment

Machine maize shelling is minimal throughout the county, with the exception of Tongaren and Mt. Elgon on small scale. Currently, storage of farm produce is done in residential houses due to insecurity and the small residual quantities left for storage. The level of agro processing and cottage industry development is low throughout the county. Agro-processing is largely represented by small maize posho mills scattered throughout the county. Motorized chemical sprayers are non-existent in the county. Most farmers use hand operated equipment for pest and disease control in crops.

2.1.17 Land and Water Development

Land is an important factor of production. If not well managed, it can lead to problems such as proliferation of informal settlements, inadequate infrastructural services, congestion, environmental degradation, unplanned urban centres, pressure on agricultural land, and conflicts.

It is estimated that intensified irrigation can increase agricultural productivity fourfold and, depending on the crops, incomes can be increased ten times. Some water deficit countries have proved that coordinated development and utilization of irrigation does transform economic development.

Bungoma County depends mainly on rain fed agriculture. Despite the high potential of the county on small holder irrigation systems little has been done. Nevertheless, the county government is keen to promote irrigation farming for both food and cash crops. Increased investment in the development and rehabilitation of degraded lands through drainage intervention and land reclamation will also increase productivity. Water harvesting and storage technologies can expand potential for increased agricultural production and livestock development. This can be enhanced through construction and rehabilitation of dams and water pans; and proper management of water sources.

2.1.18 Pests and Disease Management

Great attention is given to the control of notifiable animal diseases to protect the county animal resource base. The management of these diseases makes livestock farming sustainable and facilitates trade in animal products. In order to safeguard human health, these diseases e.g. Anthrax, LSD, BQ,FMD,ECF, Trypanosomiasis, Brucellosis, New castle diseases, African swine fever 9 (ASF), leptospirosis and Gumboro should be managed. The challenges facing these disease control mechanisms have been inadequate funding and deficient vaccines.

The vector borne disease like East coast fever infection has serious impact on the dairy industry. Trans-boundary disease like Trypanosomiasis requires concerted efforts through the Kenya tsetse and Trypanosomiasis Eradication campaign. The diagnosis of

these diseases requires proper laboratories; however, only one field laboratory exists. The management of other diseases requires surveillance for early detection and appropriate prevention action taken. The veterinary public hygiene through quality assurance measures ensures market status and safeguard of human health.

2.1.19 Legal and Regulatory Framework

Promulgation of the Kenya Constitution 2010, created a new political dispensation on governance. Two tier-governments were created being the National and the County governments with specific roles and functions as stipulated in the Fourth Schedule. As a result, there is a high expectation on the delivery of services by the County Government. The County Government continues to put in place structures, policies and programs that enable agricultural growth and development. These Agricultural functions include Crop, Animal and Fisheries Management.

There are national legislations governing agricultural development which need to be adopted and harmonized to suit the County agricultural development agenda. There is also poor enforcement of laws and policies e.g. in coffee, livestock and land transactions. These need urgent attention to put in place supporting legislation for development.

There is need to put in place a legal framework that will enable the Cooperative movement to thrive and deliver on its mandate. These will include financing, management and streamlining of society activities in the county.

2.1.20 Existing Sector Policy, Strategies and Legal Framework

There exists a number of national policies governing the agriculture sector. The County Government is in the process of domesticating some of the national policies through support by partners such as GIZ, MESPT, AGRIBIZ and RTI-USAID. The following policies, bills and Strategies have been drafted by the County Government and are undergoing approval processes; Agriculture Sector Policy, Soil Policy, Roots and Tubers Strategy, Potato Strategy, Cooperative Development Policy, Food Safety Policy and bill, ATVET Policy and bill, Agribusiness Policy, Youth Agribusiness Strategy, Avocado Promotion Strategy, Dairy Development Policy/Strategy, Aquaculture Policy and Fisheries bill. The existing national sector policies and strategies include:

Agricultural Sector Transformation and Growth Strategy (ASTGS), 2019 – 2029

The ASTGS prioritizes three anchors to drive the 10-year transformation, with specific targets set for the first five years: Increase small-scale farmer, pastoralist and fisher folk incomes; Increase agricultural output and value add; and Increase household food resilience. The path to achieving these outcomes must address the unique challenges and opportunities for women and youth in the sector by incorporating

tailored opportunities for these groups as an integral part of delivering the ASTGS. Women comprise more than half of Kenya’s population, youth between 18-35 comprise ~35%, but these two groups are underrepresented in agriculture and as a result do not receive full benefits of participation in the sector.

National Agribusiness Strategy, 2012

This strategy is designed to bring about a highly productive and efficient agribusiness sector which is competitive both locally and internationally.

National Food and Nutrition Security Policy

The policy is aimed at achieving good nutrition, increased availability, accessibility and affordability of high quantity and quality food.

Sessional Paper No. 2 of 2008 – The National Livestock Policy

This policy addresses the challenges in the livestock subsector in the context of livestock breeding, nutrition and feeding, disease control and management, value addition, marketing and research.

Aquaculture Policy, 2011

The policy aims to achieve a vibrant aquaculture industry with strong and efficient marketing systems that allow for increased investment and economic gains in aquaculture, increased contribution towards food security while being supported by strong and efficient extension services and demand driven research.

National Irrigation Policy

This policy outlines intervention measures to be implemented in order to stimulate and accelerate the development of irrigation and drainage.

Cooperative Development Policy, 2011

The Policy aims at creating an enabling environment for sustainable Co-operative development in Kenya and providing a framework for accelerating Kenya’s Co-operative growth in a dynamic and competitive global economic environment.

National Agriculture Sector Extension Policy (NASEP), June 2012

The policy highlights the importance of a properly functioning agricultural extension service operated by the public and private sectors as being one of the critical inputs required for increased agricultural productivity to transform subsistence farming into modern and commercial farming, attain food security, improve incomes and reduce poverty.

National Horticultural Policy, June 2012

The objective of this policy is to sustain the Horticulture Industry’s growth and development to enable it contribute to food and nutrition security, provide raw

materials for primary processing, compete favourably in the export market and earn more foreign exchange, generate increased incomes and employment and generally contribute to the broader economic goals as envisaged in Vision 2030.

National Agricultural Research System Policy, July 2012

The objective of the NARS is to create an enabling environment for a vibrant agricultural research system that contributes effectively to national development by improving agricultural research policy framework, harmonizing and providing direction to national research for sustainable development, strengthening the legal, institutional and regulatory framework, coordinated planning, development and management of knowledge, information and communication technology, increased focus on outreach and technology dissemination and targeted partnership development framework.

National Seed Policy, June 2010

The objective of the National Seed Policy is to avail high quality seed and planting material for the country’s farming and forestry needs, exploiting the potential of improved varieties and technologies, building capacity and infrastructure development, quality control, technology transfer, establishing an effective regulation, coordination and management, creating an enabling environment for effective participation of both public and private sector.

2.2 Review of Sector Financing

This section highlights the trends on how the sector has been previously allocated resources to finance its programmes since inception of county governments.

2.2.1 Agriculture Sector Budget Vs. Total County Budget Allocation

The Agriculture Sector Budget allocation by the County Government, National Government, Development Partners and other non-state actors has gone into the following programmes;

- i. Human Resource Capacity Development
- ii. Policy Development
- iii. Food Security Initiatives- Farm Input Support Programme; Fertilizer, Seed, Seedlings, Chemicals, Advisory Services, e.t.c
- iv. Cooperatives Development
- v. Soil Testing and Analysis
- vi. Extension Service Support
- vii. Post-Harvest Management
- viii. Mechanisation Service Development
- ix. Dairy Value Chain Development
- x. Aquaculture Development

- xi. Agricultural Water Storage and Irrigation Development
- xii. Development of Mabanga Agricultural Training Centre
- xiii. Development Of Chwele Fish Farm
- xiv. Development of Agriculture Mechanization Centre
- xv. Sectoral Planning, Financial Management, Monitoring and Evaluation
- xvi. Research and Development
- xvii. Stakeholder Coordination
- xviii. National Agriculture and Rural Inclusive Growth Project (NARIGP)
- xix. Agriculture Sector Development Support Programme (ASDSP)

The overall county allocation towards agriculture has been an average of 9% over the period 2013 – 2019. Annual absorption of the budget has averaged 62% due to slow procurement processes and delayed exchequer releases. Table 15 indicates the trend of budgetary allocation to the sector verses the total county budget allocation.

Table 15: Source of Sector Budget Financing

Source of Financing	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/2022	2022/2023
County Government (equitable share, and own source revenue)	799,481,316	757,935,435	818,090,647	791,096,750	790,029,613	682,447,120	656,141,703	666,681,361	806,890,911.40	743,349,907.00
National Government (conditional grants)	0	0	0	0	0	0	0	0	0	0
Development Partners (conditional grants)	0	0	0	0	19,800,000.00	298,000,000.00	374,760,010.00	374,760,010.00	311,286,114.00	98,568,032.00
A.I.A (CSOs)										

2.2.2 Sub Sector Budget Vs. Total Sector Budget Allocation

Crops sub sector has been allocated approximately 60% of the entire sector budget. Most of this allocation has gone into NARIGP and Farm Input Support Programme where vulnerable farmers have been issued with free maize seed and fertilizer. Table 16 indicates the trend of budgetary allocation to the sub sectors verses the total sector budget allocation.

Table 16: Sub Sector Budget Allocation Vs Sector Budget Allocation

	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Crops Sub Sector	487,683,603	462,340,615	499,035,295	474,658,050	461,602,879	558,854,858	623,695,536	623,136,671	635,678,000	628,823,529
Irrigation Sub Sector	7,994,813	7,579,354	8,180,906	7,910,968	8,098,296	9,804,471	10,309,017	7,869,000	9,124,524	11,232,090
Livestock Sub Sector	239,844,395	227,380,631	245,427,194	213,596,123	226,752,292	294,134,136	283,497,971	278,645,300	346,507,766	280,900,000
Veterinary Sub Sector	39,974,066	37,896,772	40,904,532	39,554,838	40,491,481	49,022,356	51,545,086	65,780,000	59,821,590	55,400,340
Fisheries Sub Sector	15,989,626	15,158,709	16,361,813	15,821,935	16,196,592	19,608,942	10,309,017	11,230,400	10,327,800	11,240,000
Cooperatives Sub Sector	7,994,813	7,579,354	8,180,906	39,554,838	56,688,073	49,022,356	51,545,086	54,780,000	56,717,345	54,321,980
Total Sector Budget	799,481,316	757,935,435	818,090,647	791,096,750	809,829,613	980,447,120	1,030,901,713	1,041,441,371	1,118,177,025	1,041,917,939

2.3 Sector Performance Trends and Achievements

This section provides an analysis of the sector performance trends based on the key sector statistics (outcomes). It also highlights the key achievements of the sector since inception of the county governments as well as lessons learnt.

2.3.1 Crops Sub Sector Performance Trends and Achievements

Since the on-set of devolution, the County Government has consistently provided support to needy farmers (subsidized fertilizer and seeds), including mechanized services as well as extension services. Approximately 164,606 vulnerable farmer households have benefited from issuance of fertilizer and maize seed by the County Government from FY 2013/14 to FY 2019/20. This translates to 16,460.6 T of fertilizer and 1646 T of maize seed given to the farmers over the period. This was aimed to increase production and productivity of maize in the county for food security, improved farmer incomes and improved livelihoods.

The County Government acquired nine tractors and implements over the same period to enhance adoption of mechanization services in the county through the tractor hire service programme. Acquisition of 3 mobile soil laboratories to enhance soil testing and analysis services in the county. The county government also acquired 3 grain driers and 90 moisture metres to enhance post-harvest handling of grain. This was intended to increase crop production and productivity. To enhance adoption of modern farming technologies for horticulture, the county government purchased and distributed 139 green houses to farmer groups across the county for tomato and vegetable production.

The county government continued to promote targeted value chains which included: purchase and distribution of 500,000 tea seedlings to increase area under tea cultivation in the county to facilitate establishment of a tea factory; 62,000 tissue banana seedlings procured and hardened at Mabanga ATC then distributed to farmers

at subsidized prices, collaboration with GIZ to support potato farmers. Crop Insurance programme was piloted in Bumula, Webuye East and Kanduyi sub-counties.

2.3.2 Irrigation Sub Sector Performance Trends and Achievements

To enhance water storage capacity for irrigation, the County Government rehabilitated 7 dams (Kapkara, Brigadier, Namasanda, Namwela, Butonge, Muyayi, Magemo, Mbakalo, Khayo, and Akola). The project was aimed at enhancing food security and farmer incomes through horticulture by increasing availability of water for irrigation.

2.3.3 Veterinary Sub Sector Performance Trends and Achievements

The County Government prioritised establishment of the Chwele Chicken Slaughter House to enhance value addition and agro-processing in poultry and provide a reliable market to chicken farmers in the county. Though not functional, arrangements to operationalize the facility were ongoing. Once operational the plant will enhance chicken farmer incomes in the county.

In order to upscale uptake of Artificial Insemination (AI) services, the county government purchased and issued 45 AI kits to service providers in the County. AI subsidy programme was also initiated in 2019 to enhance uptake of AI service and increase the number of improved breeds in the county.

The Bungoma and Webuye slaughterhouses were renovated to enhance hygiene and provide a conducive environment for slaughtering services for food safety. The procurement process for renovation of Kimilili slaughterhouse was ongoing.

2.3.4 Livestock Sub Sector Performance Trends and Achievements

The County Government is establishing a milk processing plant at Webuye as a flagship project. Construction of the plant structures is complete awaiting installation of processing equipment. Once Complete, the project is expected to dairy farmer incomes by providing a reliable milk market and also offer employment opportunities.

The livestock department installed seven milk coolers and was in the process of installing twenty other coolers. This was expected to enhance farmer incomes through collective marketing and to enhance value addition.

The County Government purchased and distributed a total of 502 dairy cows and 180 dairy goats to farmer groups across the County over the period 2013 – 2017. This was aimed at enhancing adoption of improved dairy breeds and increasing milk production and productivity.

Provision of farmer extension services and learning opportunities through demonstrations, farmer field days and agricultural shows and exhibitions was sustained since inception of the county government.

2.3.5 Fisheries Sub Sector Performance Trends and Achievements

To promote aquaculture in the County, the County Government has in a phased approach developed Chwele Fish Farm as a training centre for fish farmers in the county and also to offer farm inputs especially fingerlings to farmers at subsidized rates.

2.3.6 Cooperatives Sub Sector Performance Trends and Achievements

A part from promotion of good governance through training, inspection, financial advisory services and audits, the County Government has continued to support the growth of cooperative movement in the County over the period under review. The government supported Mt. Elgon Cooperative Union to establish a coffee milling plant at Chesikaki; Supported Bungoma Cooperative Union to establish a coffee milling plant at Musese; has provided coffee seeds to 45 cooperative societies in the county; constructed coffee bean stores at Musese and Chesikaki Coffee Mills, constructed a milk cooler house in Bumula and a coffee bean store at Kimukungi Coffee factory. Naitiri and Ndalul Farmer Dairy Societies have also been supported with milk coolers and other equipment through Small Holder Dairy Commercialization Project (SHDCP).

Table 17: Sector Outcome Performance

S/No.	Key Outcome	Key Outcome Indicators	Unit of Measure	Baseline Value (2013)	End Term Target (2022)	End Term Actual (2022)	Remark
1.	Programme: Crop Development and Management						
	Objectives: To Enhance food security and farmer incomes						
	Increased crop productivity	Increase in maize production	MT	287.42	700	504.28	Total maize production increased by 75.45% attributable to increased access to farm inputs and enhanced investments in maize production. Key outputs included 167,608 beneficiaries of fertilizer and maize seed in all the 45 Wards (FISP -100Kgs of fertilizer and 10kgs of seed), KCEP e-voucher program benefited 4,603 farmers in Sirisia and Tongaren Sub-counties, 189,260 farmers trained and benefited from extension services, 136 agriculture officers employed to enhance service provision, 9 tractors procured for tractor hire services.

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							However, the target was not met due to a shift in production to sugarcane in Tongaren and Mt. Elgon, changing weather patterns, high cost of inputs and low adoption of good agricultural practices
		Increase in beans production	MT	34.84	100	46.87	Total bean production increased by 34.53% attributable to enhanced investments in bean production e.g NARIGP Key outputs included 167,608 beneficiaries of fertilizer, 30,463 bean farmers benefitted from input support by NARIGP The target was not met due changing weather patterns, high cost of inputs and low adoption of good agricultural practices
		Increase in sorghum production	MT	1.61	3	0.21	Sorghum production reduced by 86.96% attributable to reduced uptake of sorghum production by farmers in the county
		Increase in finger millet production	MT	1.33	3MT	1.22	Finger millet production reduced by 8.27% attributable to reduced uptake of finger millet production by farmers in the county
		Increase in sweet potato production	MT	38.4	100	41.04	The 6.88% increase in production was attributable to improved seed variety and increased market The target was not met due changing weather patterns, high cost of inputs and low adoption of good agricultural practices
		Increase cassava production	MT	3.6	5	0.84	Total Production reduced by 76.67% attributable to reduced uptake of cassava production by farmers in the county
		% increase in groundnut production	MT	0.83	1.5	1.46	Increased uptake of groundnut production driven by demand
Programme: Livestock Development and Management							
Objective: Enhanced food security and farmer incomes							
2.	Increased livestock productivity	Increase in beef production	T	2519	3000	4326.76	The 71.76% increase resulted from increased number of cattle in the county
		Increase in	T	73,394.67	150,000	93,518.77	The increase in production

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		milk production					was attributable to enhanced investments in the sector including supporting dairy farmers with improved dairy breeds, AI subsidy program, recruitment of more livestock and veterinary officers, increased farmer trainings on pasture development and GAPs amongst other interventions However, the target was not met due to changing weather patterns, high cost of inputs and low adoption of good agricultural practices
		Increase in chevon production	T	34	40	160.15	This is attributable to increased uptake of goat rearing in the county
		Increase in Mutton production	T	37	45	166	This is attributable to increased uptake of sheep rearing in the county
		Increase in pork production	T	30	35	21.9	Attributable to fluctuating market and low adoption of good agricultural practices
		Increase in rabbit meat production	T	4.5	10	4.8	The target was not met due to low uptake of rabbit rearing in the county
		Increase in poultry meat production	T	256	500	920.45	Due to increased demand for poultry meat, increased commercialization and enhanced investments in the industry.
		Increase in honey production	T	158	200	386.5	Due to increased demand for honey, increased commercialization and enhanced investments in the industry.
		Increase in wax production	T	8	15	32.7	Proportionate to honey production
		Increase in eggs production	Trays	1,649,000	3,000,000	3,025,074	Due to increased demand for poultry meat, increased commercialization and enhanced investments in the industry.
		Increase in hides production	No	22,000	30,000	22290	Attributable to increased livestock production
		Increase in skin production	No	7,000	10,000	1115	Attributable to increased livestock production
3.	Increased production of fisheries products	Increase in production of fisheries products	T	81.601	140	12.6	Decline in fisheries production was attributable to low investment in aquaculture
		Increase in number of	No.	2,700	3100 No.	3,065 No.	

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		fish farmers					
		% increase in number of operating ponds	No.	2950	3700 No.	3,252 No.	
		Increase in fish farmers income	Kshs.	14,720,670	7,500,000	3,644,700	
		Increased area (M ²) of operating ponds	M ²	885,000	1,000,000	958,699	
		Increased number of stocked ponds	No.	365	500	104	
		Increased area (M ²) of stocked ponds	M ²	109,500	150,000	31,200	
4.	Increased number of cooperative societies	Increased number of cooperative societies and SACCOs	No	109	40	395	The increase in number of societies and turnover was attributed to enhanced investment in development of cooperatives, sensitization on benefits of organized groups, mobilization of membership & registration, and training of society leadership and members on good governance, market linkages
	Increased cooperatives turn over	Increased Cooperatives and SACCOs turn-Over	Kshs.	256,74 3,854	50%	2,200,000,000	

2.3.8 Challenges

i) High poverty levels

High poverty levels are a challenge to adoption of appropriate technology, investment and sustainable production.

ii) Competing Land use

Rapid population increase and competing land uses have resulted to land fragmentation and environmental degradation thus affecting the Agriculture sector negatively in the county.

iii) Use of counterfeit products

Use of agricultural inputs results in significant increase in agricultural productivity. This is normally not met not only due to low use of inputs but also counterfeit agricultural inputs due to weak quality control systems.

iv) Inadequate market and infrastructure

Marketing of Agricultural produce continues to be adversely affected by inadequate market information, market infrastructure, and supportive infrastructure such as cold storage facilities and energy.

v) Limited Value addition and product diversification

Agricultural products in the county are mostly sold in raw form instead of value-added form and thus fetching low prices.

vi) Inadequate Policy and Legal framework

There are numerous pieces of National legislation in the sector that are yet to be cascaded/customaries to the county and led to the Sector lagging behind. In addition, there are certain areas where the sector lacks relevant policies and legislations. However, efforts have been made to develop, review and cascade/customaries some of the policies and legislations in the Agriculture Sector.

vii) Limited use of appropriate technology

Use of research and development in the Agriculture sector is limited. There is a weak research-extension linkage and low adoption of technology and innovations. This has led to low productivity and inefficiency in the sector.

viii) Inadequate Capacity to manage pests and diseases

The county has limited capacity to manage new and re-emerging pests and diseases thereby contributing to pre and post-harvest losses.

ix) Limited financial services and credit

The current high interest rates make it difficult for most Agriculture stakeholders to access financial services. Further, the formal financial system is yet to develop financial products and services that are particularly suitable to the sector activities.

x) Inadequate and delayed Government funding to the sector

The current level of government funding to the sector is generally low and slow this hampers the performance of Agriculture sector.

xi) Covid-19 pandemic and High incidence of HIV/AIDS, Malaria and Other Diseases

Covid-19 restriction measures affected sector performance negatively. Incidences of HIV/AIDs and other diseases in the county have resulted in reduced household income available to be invested in the sector and also affect labour productivity in the sector.

xii) Weak monitoring and evaluation

The monitoring and evaluation functions are not well linked to the budgetary process. This has made it difficult to track implementation and performance of the Sector programmes. There is also poor documentation and uncoordinated information management.

xiii) High cost of production

Most of the inputs used by the sector are imported. These imports are expensive and face price fluctuations due to frequent changes in foreign exchange rates. This therefore makes the cost of production expensive and has a bearing on earnings for producers.

xiv) Low production and productivity

The sector experiences low production and productivity. Most producers are small scale farmers using traditional production methods that lead to poor yields.

xv) Inadequate staffing levels

Inadequate number of extension officers hampers effective service provision

xvi) Inadequate financial resources

Inadequate financial resources have negatively impacted implementation of key programmes.

2.3.7 Lessons Learnt

This section presents the Lessons learnt during implementation of the planned policies, programmes, projects and initiatives. The learnt lessons include:

- i. With the devolved system of governance, a closer collaboration between the National and County Governments is required on the issues of capacity development and policy development and implementation;
- ii. There is need to continue with the efforts to enhance linkages and build stronger collaboration with all stakeholders particularly between the National and County Governments in order to ensure sustainable food and nutrition security and efficient service delivery;
- iii. Monitoring, evaluation and communication should be strengthened through development and implantation of a comprehensive framework to ensure effective and efficient utilization of resources for timely achievement of the desired results, data and information sharing; and
- iv. It is necessary to adopt an evidence based policy planning that would inform on impacts of policies.

2.4 Sector Development Issues

This section presents the sector development issues and their causes. The section further highlights available opportunities and the possible challenges that hinder achievement of the development objective in relation to each development issue. Table 18 highlights the Sub Sector development issues, causes of the listed issues, opportunities and challenges.

Table 18: Sub Sector Development Issues, Causes, Opportunities and Challenges

Sub-Sector	Development issues	Causes	Opportunities	Challenges
Crops	Crop production and productivity	Inadequate Agricultural Policy and Legal Framework	<ul style="list-style-type: none"> • Availability of various and diverse stakeholders and partners who can support the policy formulation process • Existence of county structures and legal framework for development and approval of county policies, bills and strategies • Availability of technical and experienced officers for policy formulation and drafting • Sector leadership goodwill and support for policy formulation 	<ul style="list-style-type: none"> • Poor coordination in policy formulation • Inadequate financial resources
		Declining agricultural land/declining soil fertility	<ul style="list-style-type: none"> • Existing national policies • Availability of soil testing services 	<ul style="list-style-type: none"> • Inadequate Agricultural Policy and Legal Framework • Low enforcement of Spatial Plans and Land Policies • Poor cultural practices • Inappropriate usage of inputs especially fertilizer
		Inadequate Knowledge and skills	<ul style="list-style-type: none"> • Availability of qualified agricultural personnel in the market • Existence of e-extension technologies that can be adopted to enhance access 	<ul style="list-style-type: none"> • Lack of a county policy on agricultural extension service provision • Lean public extension work force

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		<ul style="list-style-type: none"> to information and extension linkages • Existence of many stakeholders offering extension services who can be better coordinated for synergies to be well harnessed 	<ul style="list-style-type: none"> • Inadequate financial resources • Poor coordination amongst extension service providers and stakeholders in the county
	Low access to certified agricultural inputs	<ul style="list-style-type: none"> • Availability of input companies and agro-dealers in the county • Availability of qualified personnel to offer guidance on usage of inputs 	<ul style="list-style-type: none"> • High cost of inputs and productive resources • Existence of counterfeit and fake inputs in the market • Poor distribution of agro-dealers in the county • Inadequate knowledge and skills
	Inadequate value addition, agro-processing and market infrastructure.	<ul style="list-style-type: none"> • Availability of public land for establishment of markets • Availability of an extensive road network that requires maintenance • Availability of National PPP framework that can be domesticated to promote investment in value addition , agro-processing and market infrastructure 	<ul style="list-style-type: none"> • Inadequate financial resources • Low utilization or non-utilization of existing value addition and market infrastructure
	Low adoption of GAP and appropriate agricultural technologies such as high-yielding crop varieties	<ul style="list-style-type: none"> • Availability of public and private extension service providers • Availability various certified inputs in the market • Existence of agriculture training centres in the county and country 	<ul style="list-style-type: none"> • Inadequate financial resources • High poverty rate in the county • Changing weather patterns • Dependency on rain fed agriculture amidst changing weather patterns • High incidence of pests and diseases • Inefficient tillage and cultivation methods
	Low uptake of greening technologies	<ul style="list-style-type: none"> • Availability of greening technologies in the market 	<ul style="list-style-type: none"> • Inadequate financial resources • Inadequate knowledge and skills
	Low uptake of climate smart agriculture	<ul style="list-style-type: none"> • Availability of climate smart 	<ul style="list-style-type: none"> • Inadequate financial resources

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	technologies	technologies in the market	<ul style="list-style-type: none"> • Inadequate knowledge and skills
	Weak research–extension linkages	<ul style="list-style-type: none"> • Existence of reputable research institutions in the country (KALRO, Kenya Seed, e.t.c) • Existence of international commitments on Agriculture that Kenya is party to e.g the Malabo CAADP declaration • Availability of qualified agricultural professionals who can be employed in the various subsectors and disciplines • Availability of professional platforms where new knowledge and technologies can be shared and disseminated 	<ul style="list-style-type: none"> • Inadequate funds • Existence of quacks masquerading as agriculture professionals or qualified extension service providers • Bureaucracies in access to funds and information • Poor coordination of stakeholders
	Inappropriate land-use practices (Land fragmentation, Extension of urban development into agricultural land, Retention of idle land, Cultivation of river banks, Deforestation and encroachment into catchment areas and wetlands)	<ul style="list-style-type: none"> • Willingness by stakeholders to review existing land and environmental laws and policies • Existence of Environmental Management Bodies e.g NEMA, Land Management Bodies e.g NLC 	<ul style="list-style-type: none"> • Loyalty/Rigidity towards cultural beliefs and practises • Long policy formulation processes • Inadequate funds • Non-compliance with environmental policies
	Poor coordination of the various actors in the sector	<ul style="list-style-type: none"> • Willingness of stakeholders to review and formulate sector coordination platforms and mechanisms • Existence of CASSCOM 	<ul style="list-style-type: none"> • Inability to pool resources due to competing interests • Lengthy policy formulation processes • Weak institutional framework • Inadequate availability of funds • Competing interests among stakeholders
	Low access to markets	<ul style="list-style-type: none"> • Existence of National Agricultural Management Information System • Existence of ICT platforms, liberalization and a global market • Availability of innovative professionals 	<ul style="list-style-type: none"> • Low value addition • Resistance towards uptake of existing information platforms • Poor access to agricultural information and technologies

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			who can be engaged to develop relevant information management systems	
		Low access to credit by actors in spite of a well-developed financial sector	<ul style="list-style-type: none"> • Existence of many credit providing financial institutions including AFC • Availability of group loans where individual farmers can access credit through groups without having to provide collateral as an individual • Most financial institutions have made provisions for farmer training on credit management before advancing the loans 	<ul style="list-style-type: none"> • Stringent requirements by some financial institutions thus locking out many actors from access to credit • Lack of collateral to access credit especially amongst women and youth in agricultural enterprises • Lack of credit management skills and knowledge on how and where to access credit amongst producers based on their need • Risk averse producers who would rather not take credit because of fear of repercussions in case of failure to pay back
		Lean extension workforce and weak institutional capacity	<ul style="list-style-type: none"> • Availability of e-extension technologies • Existence of Human Resource management structures, reputable training institutions and an elaborate public service system • Availability of information management systems which can be used for storage and processing of data and information 	<ul style="list-style-type: none"> • Inadequate availability of funds • Delayed replacement of exiting senior officers • Poor working environment and lack of working tools and equipment
Irrigation	Low adoption of irrigation technologies	Weak policy and legal frameworks	<ul style="list-style-type: none"> • Availability of National Policies and Legal Framework which can be domesticated • Availability of various and diverse stakeholders • Availability of technical and experienced officers for policy formulation and drafting 	<ul style="list-style-type: none"> • Poor coordination in policy making process and competing stakeholder interests

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			<ul style="list-style-type: none"> • Sector leadership goodwill and support for policy formulation 	
		Poorly developed irrigation infrastructure in the County	<ul style="list-style-type: none"> • Existence of development partners willing to invest in irrigation programmes and projects • Increasing demand for irrigated agriculture largely attributable to the need for climate change adaptation measures 	<ul style="list-style-type: none"> • Inadequate availability of funds • Lack of prioritization of the sub sector in resource allocation • Poor attitude/perception towards irrigation in the county due to dependency on rain fed agriculture • Lack of prioritization of the sub sector in resource allocation
		Inadequate knowledge on appropriate Irrigation technologies	<ul style="list-style-type: none"> • Availability of qualified professionals in the job market • Availability of irrigation service providers in the market 	<ul style="list-style-type: none"> • Inadequate technical officers • Lack of prioritization of the sub sector in resource allocation
		High Cost of Irrigation infrastructure and technologies	<ul style="list-style-type: none"> • Existence of many technology providers can foster completion and lower prices • Existence of development partners willing to invest in irrigation programmes and projects 	<ul style="list-style-type: none"> • High county poverty index • Low investment in the Irrigation
Livestock	Livestock production and productivity	Inadequate policy and legal frameworks	<ul style="list-style-type: none"> • Availability of National Policies and Legal Framework which can be domesticated • Availability of various and diverse stakeholders • Availability of technical and experienced officers for policy formulation and drafting • Sector leadership goodwill and support for policy formulation 	<ul style="list-style-type: none"> • Inadequate availability of funds • Poor coordination in policy making process and competing stakeholder interests
		Low adoption of appropriate technologies such as high-yielding breeds and pasture varieties, breeding services	<ul style="list-style-type: none"> • Availability of improved livestock technologies • Existence of Agriculture Sector 	<ul style="list-style-type: none"> • Ineffective public extension service • High cost of essential inputs

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		<ul style="list-style-type: none"> Extension Policy Extensive need for extension services by livestock farmers Availability of qualified livestock professionals in the job market Existence of agriculture training centres in the county and country 	<ul style="list-style-type: none"> High poverty rate in the county Ineffective extension system due to inadequate staff and low or lack of facilitation/poor working conditions Delayed replacement of exited extension officers Lack of private sector investment in extension service provision hence dependency on public extension service provision
	Poor livestock production practices e.g animal welfare, breeding, feeding etc	<ul style="list-style-type: none"> Existence of policies and guidelines on livestock production Availability of public and private extension service providers Availability of various certified inputs in the market Existence of agriculture training centres in the county and country 	<ul style="list-style-type: none"> Low adoption of appropriate technologies such as high-yielding Livestock breeds Dependency on rain fed agriculture for pasture production amidst changing weather patterns High poverty rate in the county Existence of counterfeit and fake inputs in the market Changing weather patterns
	Low access to certified inputs – feeds, water, vet services, others	<ul style="list-style-type: none"> Availability of modern climate smart pasture production and preservation technologies Availability of public and private extension service providers Availability of various certified inputs in the market Existence of agriculture training centres in the county and country 	<ul style="list-style-type: none"> High cost of inputs, veterinary services and productive resources such as credit High poverty rate in the county Existence of counterfeit and fake inputs in the market Resistance towards adoption of new technologies
	High incidence of livestock pests and diseases	<ul style="list-style-type: none"> Existence of Inter-Governmental Coordination Platforms and 	<ul style="list-style-type: none"> Prevalence of trans boundary animal and zoonotic diseases

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			<p>enforcement agencies</p> <ul style="list-style-type: none"> • Existence of research and training institutions on management of diseases and pests 	<p>and pests</p> <ul style="list-style-type: none"> • Poor enforcement of Government orders and policies • Insufficient resources for disease and pest control • Inadequate technical capacity for disease control • Differences in policies and regulations amongst the various neighbouring jurisdictions • Porous borders
		Low market access	<ul style="list-style-type: none"> • Existence of a huge local and international market for various livestock products since demand for most livestock products surpasses supply • Existence of known mechanisms for product marketing e.g through cooperatives or associations • Existence of government regulations and policies protecting the local market • Establishment of regional blocks creates an expanded market for livestock products 	<ul style="list-style-type: none"> • Poor governance in cooperative societies • Stringent local and trans-boundary taxation laws • High cost of transportation and processing of products • Poorly developed or lack of value addition and agro-processing facilities • Poorly coordinated/ fragmented market systems • Lack of competitiveness due to high cost of production leading to uncompetitive prices of livestock products • Unfair Competition due to influx of cheap products from other countries • Non-adherence to set standards due to poor agricultural and product handling practices • Poor/Low diversification of

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		Unreliable data and information management in the livestock industry	<ul style="list-style-type: none"> • Existence of National Agricultural Management Information System • Existence of ICT platforms, liberalization and a global livestock industry • Availability of innovative professionals who can be engaged to develop relevant data and information management systems 	<p>products</p> <ul style="list-style-type: none"> • Poorly developed/lack of data and information management systems • Inadequate availability of funds • Poor coordination among stakeholders in data and information management
Fisheries	Fisheries production and productivity	Inadequate supportive infrastructure such as cold Storage facilities	<ul style="list-style-type: none"> • Existence of various stakeholders and development partners who can pool resources to invest in the subsector • Potential of the sector to unlock economic potential of the county through enhancing food and nutrition security, creating employment and improving livelihoods. 	<ul style="list-style-type: none"> • Low public and private sector investment in fisheries subsector • Poorly coordinated stakeholders
		Low adoption of fisheries/aquaculture appropriate technologies	<ul style="list-style-type: none"> • Existence of development partners willing to invest in irrigation programmes and projects 	<ul style="list-style-type: none"> • Poor attitude/perception towards fisheries/aquaculture in the county due to dependency on crops and other livestock products • Lack of prioritization of the sub sector in resource allocation
		Weak producer organizations	<ul style="list-style-type: none"> • Existence of cooperative professionals to offer advisory services • Existence of fisheries extension service providers to offer production advice 	<ul style="list-style-type: none"> • Poor governance in producer organizations • Inadequate availability of resources • Lack of skills in managing producer organisations • Subsistence production levels
		Poor access to financial services	<ul style="list-style-type: none"> • Existence of many credit providing 	<ul style="list-style-type: none"> • Stringent requirements by some

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		<p>financial institutions</p> <ul style="list-style-type: none"> • Availability of group loans where individual farmers can access credit through groups without having to provide collateral as an individual • Most financial institutions have made provisions for training on to farmers on credit management before advancing the loans 	<p>financial institutions thus locking out many from access to credit</p> <ul style="list-style-type: none"> • Risk averse farmers and fisher folk who would rather not take credit because of fear of repercussions in case of failure to pay back • Lack of collateral to access credit especially amongst women and youth in fisheries/aquaculture enterprises • Lack of credit management skills and knowledge on how and where to access credit
	Ineffective marketing information/ Poor access to data and information	<ul style="list-style-type: none"> • Existence of National Agricultural Management Information System • Existence of ICT platforms, liberalization and a global livestock industry • Availability of innovative professionals who can be engaged to develop relevant data and information management systems 	<ul style="list-style-type: none"> • Inadequate availability of funds • Poorly developed/lack of data and information management systems • Poor coordination among stakeholders in data and information management
	Low access to fisheries and aquaculture inputs	<ul style="list-style-type: none"> • Operationalization of Chwele Fish Farm to produce and issue inputs (fish seed and feed) at subsidized prices • Availability of extension service providers to offer advice on certified inputs 	<ul style="list-style-type: none"> • Inadequate local production of inputs (fish seed and feed) • High cost of inputs (fish seed and feed) • High poverty rate in the county • Existence of counterfeit and fake inputs in the market • Resistance towards adoption of new technologies
	Inadequate research–extension linkages	<ul style="list-style-type: none"> • Existence of reputable research 	<ul style="list-style-type: none"> • Low Government

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		<p>institutions in the country (KALRO, Kenya Seed, etc.)</p> <ul style="list-style-type: none"> • Existence of international commitments on Agriculture that Kenya is party to e.g the Malabo CAADP declaration • Availability of qualified agricultural professionals who can be employed in the various subsectors and disciplines • Availability of professional platforms where new knowledge and technologies can be shared and disseminated 	<p>investment</p> <ul style="list-style-type: none"> • Restrictions on staff recruitment • Poor coordination of stakeholders
	Poor sectoral coordination	<ul style="list-style-type: none"> • Existence of various stakeholders who can pool resources to facilitate establishment of monitoring control and surveillance systems 	<ul style="list-style-type: none"> • Weak policy framework on coordination • Poor coordination among stakeholders
	Low access to Markets	<ul style="list-style-type: none"> • Existence of Export Promotion Bodies and Subsector experts to offer advisory services on export standards 	<ul style="list-style-type: none"> • Low adoption of modern production technologies • Lack of value addition and agro-processing facilities • Stringent sanitary and phytosanitary standards set by major export destinations • High cost of local fish production hence less competitive due to higher prices • Lack of product diversification and value addition • Tariff and non-tariff barriers to international trade
	Poor fisheries/aquaculture practices	<ul style="list-style-type: none"> • Availability of public and private extension service providers 	<ul style="list-style-type: none"> • High cost of inputs especially fish seed and feed

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			<ul style="list-style-type: none">• Availability of various certified inputs in the market• Existence of agriculture training centres in the county and country	<ul style="list-style-type: none">• Dependency on rain fed agriculture for production amidst changing weather patterns• High poverty rate in the county• Existence of counterfeit and fake inputs in the market• Changing weather patterns
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2.5 Crosscutting Issues

This section discusses in brief the crosscutting issues in terms of: the current situation, how they are affecting the sector, measures in place to mainstream them and the existing gaps. The cross cutting issues are discussed in table 19 below;

Table 19: Analysis of Sector Crosscutting Issues

Crosscutting issue	Current situation	Effects of the issue	Gaps (policy, legal and institutional)	Measures for addressing the gap	Recommendations
Green growth and green economy	Low adoption of greening technologies	<ul style="list-style-type: none"> - Environmental degradation - Low income amongst agricultural actors resulting from poor environmental conditions e.g depleted soils 	Lack of a County Policy on green growth	- Formulation of county policy/strategy on Green growth and green economy	<ul style="list-style-type: none"> - Domestication of existing strategies on Green growth and green economy - Mainstreaming Green growth measures in all sector programmes
Climate Change	The performance of the sector is seriously affected by impacts of climate change manifesting itself in the following forms: frequent and severe droughts and floods that have devastating consequences on the environment, society and wider economy;	<ul style="list-style-type: none"> - Reduced productivity in rain fed agriculture - High food prices - Pest outbreaks and disease epidemics - Drying of rivers and wetlands (leading to reduction of water for agriculture) - Loss of livestock - Crop failures, pasture and forage depletion among others. - This calls for various adaptation and mitigation measures 	Policy, Legal and Institutional	<ul style="list-style-type: none"> - Policy framework to promote Climate Smart Agriculture - Enactment of Laws to direct funding towards Climate Smart agriculture initiatives - Institutionalizing Climate Smart Agriculture Programmes in the County 	<ul style="list-style-type: none"> - Review of the Agriculture Sector Policy to mainstream Climate Smart Agriculture - Enactment of the Bungoma Climate Change Bill Providing resources towards Promotion of Climate Smart Agriculture
Gender in Agriculture	Gender refers to roles and responsibilities done by either men or women. In our society, overall decision making is a responsibility	<ul style="list-style-type: none"> - This trend results in skewed resource allocation hence enterprises perform below their optimal levels. - Gender-based inequalities constrain agricultural 	Policy, Legal and Institutional	- Mainstream women participation at all levels in the Sector and Value Chains	<ul style="list-style-type: none"> - Formulation/ Enforcement of County Policy framework to: - Promote gender friendly technology and practices in the agricultural sector and increase access to productive resources and markets.

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	of men and implemented by women and children.	growth and poverty reduction measures by affecting labour productivity in terms of access to and control of productive resources. - The main challenge is to overcome undesirable practices that perpetuate gender inequalities in agricultural value chains.			<ul style="list-style-type: none"> - Promote gender equity in agricultural financing. - Promote equal recruitment and capacity building opportunities. - Promote equal access to factors of production by both sexes.
Disaster Risk Management (DRM)	Disaster responses have been poorly coordinated due to lack of Standard Operating Procedures and Disaster Emergency Operation Plans	- Widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected to cope and adapt using its own resources.	Policy, Legal and Institutional	- Formulation of Sectoral Policy and Legal Framework for DRM in the sector and programming for disaster management in sector plans	<ul style="list-style-type: none"> - Domesticate existing DRM Policies - Develop strategies for joint early warning systems for disasters preparedness and control in collaboration with partners - Encourage farmers to procure insurance services to mitigate the impacts of disasters - Develop disaster and emergency contingency plans. - Provide early warning, response and ensure preparedness for adverse effects in collaboration with other agencies. - Develop capacity of agricultural value chain players to respond to unfavourable effects. - Promote disaster resilience (e.g climate change resilience) in agriculture. - Promote on farm food and feed reserves.
- Youth in Agriculture	- According to the National Youth Policy (2006), the youth in the age 15-35 years	- Youth have limited opportunities in agricultural value chains thus posing a challenge to	- Policy and Institutional gaps	<ul style="list-style-type: none"> - Provide a policy framework for Youth Involvement in Agriculture - Institutionalize participation of 	<ul style="list-style-type: none"> - Formulation of a Youth Agribusiness Strategy - Provision of guidelines on Participation of youth

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	<p>have been largely excluded from designing, planning, and implementing programmes and policies</p>	<p>succession in the sector.</p> <ul style="list-style-type: none"> - The youth are limited in terms of accessing factors of production including land, credit and insurance. - The current production technologies have also not attracted the youth to agriculture and this has negatively affected production and productivity. - The perception of the youth towards agriculture is negative 		<p>youth in agriculture</p>	<p>at all levels and value chains in the sector</p> <ul style="list-style-type: none"> - Formulate/Enforce policies to: - Empower youth access to factors of production and appropriate skills in agriculture - Promote Youth friendly technologies (ICT platform) in the sector. - Advocate reintroduction /inclusion of agriculture subject in education program in schools’ curriculum and ATVETS.
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2.6 Emerging Issues

- i. Impacts of climate change: During the review period the performance of the sector was seriously affected by impacts of climate change manifesting itself in the following forms: frequent and severe droughts and floods that have devastating consequence on the environment, society and wider economy; reduced productivity in rain fed agriculture, high food prices, pest outbreaks and disease epidemics, drying of rivers and wetlands (leading to reduction of water for agriculture), loss of livestock, crop failures, pasture and forage depletion among others. This calls for various adaptation and mitigation measures
- ii. Multiplicity of taxes: producers are subjected to multiple taxes both at national and county level in form of levies of taxes. This has contributed to a reduction of the net farm incomes
- iii. The ravaging effects of Covid-19 pandemic on food systems and trade caused by the novel corona virus which was declared a world pandemic by WHO in February, 2020
- iv. Making agribusiness a source of mass employment especially for youth and women

2.7 Stakeholder Analysis

This section highlights the different stakeholders relevant to the sector and their roles as indicated in table 20.

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Table 20: Stakeholders and their Roles

Stakeholder	Role	Possible areas of collaboration
County Agricultural Departments	Creates enabling policy environment, facilitates extension services and provides technical services	Coordination of agricultural programmes
Farmers	Producers	Implementation of good agricultural practices
Farmer Organizations	Represents interests of farmers, solicits for fair prices & suitable market for produce	Mobilization of farmers, capacity building and marketing of produce
Co-operative Societies	Mobilizes local resources for the benefit of members	Mobilization of farmers, capacity building and marketing of produce
Development Partners	Support Policy formulation processes, provide farmer support initiatives, program funding	Funding of agricultural programmes and projects
Private Sector	Provide market for farmers’ produce, value addition	Compliance to standards and ethical practises
Civil Society Organizations	Advocacy and community sensitization	Advocacy on key Sectoral issues
NGOs and CBOs	Provide technical support & training on best agricultural practices and market linkages	Mobilization of farmers, capacity building and funding of community based initiatives
National/ County Governments and their respective Ministries and departments	Policy formulation, implementation and evaluation, provision of resources and technical backstopping	Funding of agricultural programmes and projects, Policy formulation and continuous engagement of key Sectoral matters
Training and Research institutions	Provision of relevant agriculture research and training services	Capacity building and Research – Extension linkages

CHAPTER THREE: SECTOR DEVELOPMENT STRATEGIES AND PROGRAMMES

3.1 Sector Vision, Mission and Goal

3.1.1 Sector Vision

Innovative, sustainable and commercially oriented sector

3.1.2 Sector Mission

To facilitate competitive Agriculture through enhanced institution efficiency, capacity building, optimal and sustainable resource management, promotion of value addition, and marketing systems.

3.1.3 Sector Goal

The overall goal of the sector is to attain food security and sustainable management of land and the blue economy for socio-economic development

3.2 Sector Development Objectives and Strategies

This section presents the sector objectives and strategies in relation to development issues identified in the previous chapter. The information is captured as provided in the Table 21.

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Table 21: Sector Developmental Issues, Objectives and Strategies

Sub-Sector	Development issues	Developmental Objectives	Strategies
Crops	Crop production and Productivity	To enhance crop production, productivity, value addition, marketing and incomes	<ul style="list-style-type: none"> • Strengthen Policy, Legal and Institutional Framework • Promote climate smart agriculture • Enhance access to affordable and quality agricultural inputs and credit. • Support crop extension and training services • Develop agro-processing and value addition infrastructure. • Promote Conservation Agriculture • Promote agricultural product value chain development for key priority commodities • Promote establishment of cooperatives along value chains. • Enhance access to insurance for crop, livestock and fishery enterprises. • Mainstream cross-cutting issues such as green growth and green economy; climate change; HIV and AIDS; Gender, Youth and Persons with Disability (PWD); Disaster Risk Management (DRM); Ending Drought Emergencies (EDE) among others.
Irrigation	Low irrigation in the county leading to low productivity	To promote adoption of irrigation technologies for enhanced agricultural productivity	<ul style="list-style-type: none"> • Strengthen Policy, Legal and Institutional Framework • Promote household irrigation technologies • Develop and manage irrigation infrastructure • Promote agricultural water storage and management. • Mainstream cross-cutting issues such as green growth and green economy; climate change; HIV and AIDS; Gender, Youth and Persons with Disability (PWD); Disaster Risk Management (DRM); Ending Drought Emergencies (EDE) among others.
Livestock	Livestock production and productivity	To enhance livestock production, productivity, value addition and incomes	<ul style="list-style-type: none"> • Strengthen Policy, Legal and Institutional Framework • Promote Livestock and Veterinary extension and training services • Support pasture development • Promote Livestock Value Addition and Agro Processing • Manage Agribusiness, Marketing and information • Support Livestock Insurance Services • Develop Leather and leather products industry • Mainstream cross-cutting issues such as green growth and green economy; climate change; HIV and AIDS; Gender, Youth and

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			Persons with Disability (PWD); Disaster Risk Management (DRM); Ending Drought Emergencies (EDE) among others.
Fisheries	Fisheries production and productivity	To enhance fisheries production, productivity, value addition and incomes	<ul style="list-style-type: none"> • Strengthen Policy, Legal and Institutional Framework • Promote Fisheries value addition and aqua-processing • Manage Aqua-business, marketing and information • Support aquaculture financing services • Promote fish safety and quality control • Mainstream cross-cutting issues such as green growth and green economy; climate change; HIV and AIDS; Gender, Youth and Persons with Disability (PWD); Disaster Risk Management (DRM); Ending Drought Emergencies (EDE) among others.

3.3 Sector Programmes and Interventions

This section provides the programmes, their objectives and the key interventions. The programmes are in line with the strategies identified in Section 3.2. Consideration of projects within the programmes is in accordance with the Public Investment Management guidelines.

Table 22: Sector programmes and interventions

Programme	Objectives	Sub-Programmes	Strategies/ Interventions
General Administration, Planning and Support Services	To enhance effectiveness and efficiency in service delivery	Policy, legal and regulatory frameworks	<ul style="list-style-type: none"> • Establish a departmental Policy and Planning Unit to spearhead the Policy/legal formulation process • Enhance funding by additional County Government allocation and Partnerships to formulate relevant polies and laws • Fast tract finalization process of draft policies, bills and guidelines • Review existing policies and laws to align them to changing trends • Develop/Harmonize County-Specific Policies with the National Government Policies
		Sector Coordination	<ul style="list-style-type: none"> • Formulation of policy, legal and institutional framework for sector stakeholder coordination
		Planning and financial management	<ul style="list-style-type: none"> • Participatory and Joint Sectoral Planning and budgeting amongst stakeholders to minimize duplication • Preparation of a 5 year Sectoral strategic plan

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			<ul style="list-style-type: none"> • Formulation of a resource mobilization strategy for the sector • Compliance with implementation reporting framework and standards as legally stipulated • Compliance with established supply chain management mechanisms in the sector
		Monitoring, Evaluation, Learning and Reporting	<ul style="list-style-type: none"> • Establishment of a Sectoral data management mechanism/system for collection, storage, retrieval and reporting of agriculture and livestock data • Development of a Monitoring and Evaluation Strategy for the Sector • Development of Communication Strategy for the Sector • Establishment and operationalization of a Sectoral M&E unit to spearhead M&E activities in the Sector • Continuous monitoring of sector programmes/ projects/activities and submission of Quarterly Monitoring Reports to relevant authorities • Conducting Evaluation of programme/project performance to determine whether objectives are being met and submission of Evaluation Reports to relevant authorities • Preparation of documentaries on success stories to inform expanded adoption of the successful programs • Development of a standard reporting tool for adoption by sector stakeholders for ease of compilation and harmonization • Development of a central repository for all Sectoral information on policies, programs, projects and activities for ease of access (Development of an Agricultural Information Management System)
		Leadership and Governance	<ul style="list-style-type: none"> • Sensitization and enforcement of staff performance appraisal and performance contracting systems • Establishment of complaints and conflict handling mechanisms in the sector • Establishment of an elaborate asset management mechanism

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			<ul style="list-style-type: none"> • Establishment of integrity assurance systems in the sector • Establishment of a public participation framework for Sectoral Policies, Strategies, Bills, Programs, Projects and activities • Conducting Monthly/Quarterly sector Management meetings
		Human Resource Management and Development	<ul style="list-style-type: none"> • Recruitment of technical/extension officers based on approved staff establishment to reduce the staff to farmer ratio • Preparation Staff Training Plans and Continuous Training of staff on emerging technologies • Compliance with established human resource management framework on recruitment, deployment remuneration, working environment, promotion, discipline, exit/retirement and replacement.
		Administrative and support Services	<ul style="list-style-type: none"> • Provision of sufficient office space at the county, sub-county and ward level • Uninterrupted provision of utilities i.e electricity, water, internet, security amongst other services • Provision of Motor Vehicles and motor cycles and sufficient maintenance mechanism at the county, sub-county and ward level to facilitate extension service provision • Establish a proper coordination mechanism for administrative and support services in the sector • Establishment of a sustainable Sectoral records management system
Crop Development and Management	To enhance crop production, productivity, value addition and incomes	Crop extension and training services	<ul style="list-style-type: none"> • Provision of a policy framework on funding of agricultural extension services in the county • Promote establishment of ATVET institutions in the County to offer specialized pedagogical training in agriculture • Conduct a county extension baseline survey to provide necessary data for extension planning • Development of an e-extension platform with real time engagement capabilities among users i.e a farmer, an extension officer and a

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			<p>supervisor.</p> <ul style="list-style-type: none"> • Establishment of model demonstration farms in each village unit • Conducting field days to disseminate extension information/messages • Undertaking regular on-farm farmer visits for backstopping • Development of standard extension messages and sharing through media, booklets, brochures, fliers, etc • Assigning specific extension officers to specific areas of service (a sub-county, ward or village) for ease of supervision and accountability • Provision of Motor Vehicles, Motor Cycles, and required tools and equipment where appropriate to facilitate extension service provision • Strengthen research-extension linkages through quarterly meetings to share new knowledge and technologies • Establish/strengthen the research liaison office at the county • Organize/participate in trade shows/ exhibitions/ fairs
		<p>Crop Production and Productivity (Food, Industrial and Horticultural Crops)</p>	<ul style="list-style-type: none"> • Enhance access to farm inputs (fertilizer, certified seed, chemicals, irrigation infrastructure, mechanization machinery, e.t.c) through programs such Farm Input Support, Agricultural Financing, etc • Enhance access to Soil testing, analysis and treatment services to improve soil quality • Sensitization and enforcement of National Land Policy to regulate fragmentation of agriculturally productive land • Enhance adoption of appropriate technologies such as high-yielding crop varieties, use of greenhouses, efficient tillage and cultivation methods, mechanization, e.t.c • Enhance adoption of climate smart agriculture to mitigate against the impact of climate change • Enhance access to chemicals to combat pests and diseases and usage of comparatively resistant

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		seed varieties
	Agriculture Soil Management	<ul style="list-style-type: none"> • Promote adoption of Conservation Agriculture technologies e.g chisel ploughing, composting, cover crops • Promote soil testing, analysis and treatment • Promote adoption of technologies to minimize soil erosion
	Post-harvest management	<ul style="list-style-type: none"> • Promote development and adoption of drying innovations for small scale farmers • Input support for post-harvest treatment • Promote adoption relevant household storage technologies
	Agricultural Value Addition and Agro Processing	<ul style="list-style-type: none"> • Carry out feasibility studies for establishment of value addition and agro-processing units in the county especially for maize, tomato, coffee, tea, banana and potato • Establish PPP Framework for establishment of value addition and agro-processing units in the county especially for maize, tomato, coffee, tea, banana and potato
	Quality assurance and monitoring of outreach services	<ul style="list-style-type: none"> • Conduct quarterly field backstopping visits • Carryout continuous monitoring and evaluation activities and give quarterly reports
	Agribusiness, Marketing and information management	<ul style="list-style-type: none"> • Capacity building of agro-based MSMEs on entrepreneurial and business skills • Establishment of a central repository for management of agribusiness and market information in the county • Collection of weekly market information on key commodities/crops for dissemination to stakeholders • Establishment of modern agri-business market facilities at strategic urban areas e.g Chwele, Kamukuywa, Bungoma town and Webuye amongst others
	Agricultural Financial Services	<ul style="list-style-type: none"> • Mapping of agricultural financial service providers in the county • Establishing linkages through meetings and recommendations between players in the subsector and financial service providers • Promote development and adoption of Crop Insurance products

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		Weather information	<ul style="list-style-type: none"> • Timely submission of weather information to farmers in the county • Assessment and maintenance of weather stations in the county
		International, National and County Celebrations	<ul style="list-style-type: none"> • Organize/Participation in World Food Days, Ushirika Days, National Agricultural Shows and Annual Professional Seminars amongst others
		Nutrition-sensitive agriculture	<ul style="list-style-type: none"> • Promote adoption of kitchen gardens with traditional high value vegetables
Irrigation development and management		Household Irrigation Technologies	<ul style="list-style-type: none"> • Provision of irrigation extension services through field days, demonstrations, on-farm visits, media, brochures, fliers and booklets, etc • Capacity building of farmer groups on available water efficient irrigation technologies • Promote development and adoption of household Irrigation Technologies e.g drip, rain gun, sprinkler etc • Provide irrigation equipment support to groups engaging in crop production
		Development and Management of Irrigation Infrastructure	<ul style="list-style-type: none"> • Carry out community sensitization on need and importance of irrigation infrastructure • Undertake feasibility studies on proposed irrigation projects • Prepare designs and undertake community sensitization for buy-in on proposed irrigation projects • Carry out resource mobilization for implementation of proposed irrigation projects • Carry out continuous capacity building of management committees responsible for maintenance of irrigation projects
		Agricultural Water Storage and Management	<ul style="list-style-type: none"> • Mapping of all small dams in the county • Train management committees on maintenance and sustainable management of the small dams e.g minimizing siltation • Establishment/Rehabilitation of small dams across the county • Promote development and adoption of household water harvesting technologies e.g household water

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			pans, roof catchment, etc
Livestock Development and Management	To enhance livestock production, productivity, value addition and incomes	Livestock extension and training services	<ul style="list-style-type: none"> • Provision of a policy framework on funding of agricultural extension services in the county • Promote establishment of ATVET institutions in the County to offer specialized pedagogical training in agriculture • Conduct a county extension baseline survey to provide necessary data for extension planning • Development of an e-extension platform with real time engagement capabilities among users i.e a farmer, an extension officer and a supervisor. • Establishment of model demonstration livestock farms in each Ward/village unit • Conducting field days to disseminate extension information/messages • Undertaking regular on-farm farmer visits for backstopping • Development of standard extension messages and sharing through media, booklets, brochures, fliers, etc • Assigning specific extension officers to specific areas of service (a sub-county, ward or village) for ease of supervision and accountability • Provision of Motor Vehicles, Motor Cycles, and required tools and equipment where appropriate to facilitate extension service provision • Strengthen research-extension linkages through quarterly meetings to share new knowledge and technologies • Establish/strengthen the research liaison office at the county • Organize/participate in trade shows/exhibitions/fairs
		Pasture development	<ul style="list-style-type: none"> • Enhance on-farm demonstration at ward level • Enhance provision of quality farm input such as certified pasture seeds • Enhance inspection of livestock feeds and feed milling plants
		Livestock Production and Productivity	<ul style="list-style-type: none"> • Development and adoption of the most appropriate livestock breeds for the county. This is against having

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		(Dairy, Beef, Poultry, Honey, Goat, Sheep, Pig)	<p>many different breeds across the county</p> <ul style="list-style-type: none"> • Enhance access to farm inputs including improved breeds, certified fertilizer, certified pasture seeds, chemicals, irrigation equipment, mechanization machinery, amongst others through programs such as Farm Input Support, Agricultural Financing, etc • Enhance adoption of climate smart livestock farming technologies to mitigate against the impact of climate change • Enhance adoption of appropriate technologies such as breeding and feeding • Fast track operationalization of existing feed mills and milk coolers • Enhance implementation of demonstration innovations such as apiary, forage harvesting and handling technologies
		Agricultural Value Addition and Agro Processing	<ul style="list-style-type: none"> • Carry out feasibility studies for establishment of value addition and agro-processing units in the county especially for milk, poultry and honey, • Establish PPP Framework for establishment of value addition and agro-processing units
		Quality assurance and monitoring of outreach services	<ul style="list-style-type: none"> • Conduct quarterly field backstopping visits • Carryout continuous monitoring and evaluation activities and give quarterly reports
		Agribusiness, Marketing and information management	<ul style="list-style-type: none"> • Capacity building of agro-based MSMEs on entrepreneurial and business skills • Establishment of a central repository for management of agribusiness and market information in the county • Collection of weekly market information on livestock for dissemination to stakeholders • Establishment of modern agri-business market facilities at strategic urban areas e.g Chwele, Kamukuywa, Bungoma town and Webuye amongst others
		Agricultural Financial Services	<ul style="list-style-type: none"> • Mapping of agricultural financial service providers in the county • Establishing linkages through

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			<p>meetings and recommendations between players in the subsector and financial service providers</p> <ul style="list-style-type: none"> • Promote development and adoption of livestock Insurance products
		Weather information	<ul style="list-style-type: none"> • Timely submission of weather information to farmers in the county • Assessment and maintenance of weather stations in the county
		International. National and County Celebrations	<ul style="list-style-type: none"> • Organize/Participation in World Food Days, Ushirika Days, National Agricultural Shows and Annual Professional Seminars amongst others
		Animal Welfare	<ul style="list-style-type: none"> • Sensitization of stakeholders on animal welfare in the county • Establishment of a policy and legal framework on animal welfare in the county
		Disease and Vector control	<ul style="list-style-type: none"> • Conduct regular disease surveillance activities • Carry out routine vaccination drives across the county • Establishment/rehabilitation of cattle dips, crush pens and trapping nets across the county
		Animal Breeding	<ul style="list-style-type: none"> • Promote adoption of Artificial Insemination services through provision of Subsidized services • Establishment of animal breeding centers in the county especially at Mabanga ATC and Sang’alo Institute
		Food safety and quality control/Animal health	<ul style="list-style-type: none"> • Establishment of a veterinary diagnostic lab in the county • Licensing and Regular inspection of slaughter facilities in the county • Promote establishment/ operationalization of a poultry slaughter facility in the county • Promote establishment of a pig slaughter facility in the county
		Leather development	<ul style="list-style-type: none"> • Establishment of a tannery in the county • Licensing and inspection of flayers
Fisheries Development and Management	To enhance fisheries production, productivity, value addition and incomes	Fisheries extension and training services	<ul style="list-style-type: none"> • Provision of a policy framework on funding of agricultural extension services in the county • Promote establishment of ATVET institutions in the County to offer specialized pedagogical training in agriculture • Conduct a county extension baseline survey to provide necessary data for

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			<p>extension planning</p> <ul style="list-style-type: none"> • Development of an e-extension platform with real time engagement capabilities among users i.e a farmer, an extension officer and a supervisor. • Establishment of model demonstration livestock farms in each Ward/village unit • Conducting field days to disseminate extension information/messages • Undertaking regular on-farm farmer visits for backstopping • Development of standard extension messages and sharing through media, booklets, brochures, fliers, etc • Assigning specific extension officers to specific areas of service (a sub-county, ward or village) for ease of supervision and accountability • Provision of Motor Vehicles, Motor Cycles, and required tools and equipment where appropriate to facilitate extension service provision • Strengthen research-extension linkages through quarterly meetings to share new knowledge and technologies • Establish/strengthen the research liaison office at the county • Organize/participate in trade shows/exhibitions/fairs
		Fisheries Production and Productivity	<ul style="list-style-type: none"> • Enhance access to farm inputs including fingerlings, fish feeds and fishing gear through input support programs • Enhance adoption of appropriate technologies such as in production monosex fingerlings and water retention in ponds • Enhance adoption of climate smart fish farming technologies to mitigate against the impact of climate change • Fast track operationalization of existing feed mills
		Agricultural Value Addition and Agro Processing	<ul style="list-style-type: none"> • Carry out feasibility studies for establishment of a fisheries value addition and agro-processing units in the county • Establish PPP Framework for establishment of value addition and

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			agro-processing units
		Quality assurance and monitoring of outreach services	<ul style="list-style-type: none"> • Conduct quarterly field backstopping visits • Carryout continuous monitoring and evaluation activities and give quarterly reports
		Agribusiness, Marketing and information management	<ul style="list-style-type: none"> • Capacity building of fisheries MSMEs on entrepreneurial and business skills • Establishment of a central repository for management of agribusiness and market information in the county • Collection of weekly market information on fish products for dissemination to stakeholders • Establishment of modern agri-business market facilities at strategic urban areas e.g Chwele, Kamukuywa, Bungoma town and Webuye amongst others
		Agricultural Financial Services	<ul style="list-style-type: none"> • Mapping of agricultural financial service providers in the county • Establishing linkages through meetings and recommendations between players in the subsector and financial service providers • Promote development and adoption of fish farming insurance products
		International. National and County Celebrations	<ul style="list-style-type: none"> • Organize/Participation in World Food Days, Ushirika Days, National Agricultural Shows and Annual Professional Seminars amongst others
		Food safety and quality control	<ul style="list-style-type: none"> • Licensing and Regular inspection of fish handling facilities and traders
Agricultural Institutions Development and Management	To enhance effectiveness and efficiency in service delivery	Development of Mabanga Agricultural Training Centre (ATC)	<ul style="list-style-type: none"> • Carry out/host farmer capacity building activities on good agricultural practices • Upgrading of the ATC to an ATVET institution • Establishment of model livestock units and crops plots at the ATC for farmer learning purposes • Renovation of farm and school structures at the ATC for effective service delivery • Adopt income generating enterprises to mobilize resources for management of the ATC and for contribution to the county revenue
		Development of Mabanga Agricultural	<ul style="list-style-type: none"> • Carry out farmer sensitization and capacity building activities on

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		Mechanization Centre (AMC)	<ul style="list-style-type: none"> mechanization technologies • Establishment of an office block, a workshop, a soil sample store and machinery shed for AMC • Acquisition of additional machinery (tractors and implements, dryers, etc) to enhance adoption • Capacity building of stakeholders on agricultural mechanization technologies • Adopt income generating enterprises to mobilize resources for management of the AMC and for contribution to the county revenue
		Development of Chwele Fish Farm (CFF)	<ul style="list-style-type: none"> • Carry out/host farmer capacity building activities on good aquaculture practices • Production of fingerlings and issuance to farmers at subsidized costs • Routine desiltation of the fish ponds and flood control at CFF • Restocking of ponds with breeding stock and fitting pond liners for production of fingerlings • Establishment of a recirculating Aquaculture system for production of monosex fingerlings • Drilling and equipping of a borehole at the facility • Establishment of a laboratory, feed mill, catering facility, hostel, sanitation block, and a training hall for effective service delivery • Adopt income generating enterprises to mobilize resources for management of the AMC and for contribution to the county revenue
Cooperatives Development and Management	To enhance production, markets, value addition and incomes	Cooperative registration services	<ul style="list-style-type: none"> • Mobilization, sensitization, capacity building and registration of cooperative societies
		Cooperative governance, advisory and training services	<ul style="list-style-type: none"> • Capacity building of cooperative societies’ leaders and members on good cooperative management practices • Facilitating elections and general meetings for cooperative societies • Provision of routine advisory/extension services to cooperative societies in the county

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		Cooperative agribusiness and marketing services	<ul style="list-style-type: none"> • Promote sustainable market linkages for agricultural cooperative societies • Establishment of a central repository for management of agribusiness and market information in the county
		Cooperative infrastructural/financial support services	<ul style="list-style-type: none"> • Promote establishment of relevant infrastructure for production, storage, transportation, value addition & processing and marketing to support growth of cooperative societies. Such infrastructure include coffee pulping and milling, tea processing, milk cooling and processing, poultry collection and processing, potato cold storage and processing amongst others • Promoting linkages between cooperative societies and financial institutions • Establishment of a cooperative enterprise development fund to offer credit to vibrant societies
		Cooperative audit services	<ul style="list-style-type: none"> • Provision of audit services to cooperative societies in the county

3.4 Sector Flagship Projects

This section captures major projects/large scale initiatives with high socio- economic impact in terms of creating employment, enhancing competitiveness, revenue generation, and ability to deliver services including promoting peace and co-existence across the county. The impact should generate rapid and widely shared growth that is felt beyond the locality where it is being implemented. These may include projects that are area-based, county –wide, inter-county and those to be implemented together with national government and development partners. The information should be captured in the format as provided in table 23.

Table 23: Sectoral flagship projects

Project Name: (Location)	Objective	Outcome	Description of key Activities	Timefram e	Beneficiaries (No)	Estimated Cost	Source of Funds	Implementing Agency
Establishment of Poultry Processing Plant at Chwele	To enhance value addition, processing and marketing in the poultry value chain	Enhanced incomes and livelihoods amongst poultry farmers and other value chain actors.	Feasibility and Pre- investment study for the establishment of the poultry slaughter house, Environmental Impact Assessment for establishment of the facility, Provision of relevant policy and legal framework for establishment of the facility, Budgetary allocation of funds for construction and equipping of the slaughter facility, Procurement of Works for construction and equipping of the slaughter facility, Leasing of the facility under PPP arrangement for	2 years	150,000	60,000,000	County Government of Bungoma/Develo pment Partners	CGB/Shiffa Co. Ltd

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			operationalization, Continued promotion of poultry production amongst farmers,					
Establishment of a Milk Processing Plant at Webuye and promotion of milk production in the county	To enhance value addition, processing and marketing in the dairy value chain	Enhanced incomes and livelihoods amongst dairy farmers and other value chain actors.	Feasibility and Pre-investment study for the establishment of the Milk Processing Plant, Environmental Impact Assessment for establishment of the facility, Provision of relevant policy and legal framework for establishment of the facility, Budgetary allocation of funds for construction and equipping of the facility, Procurement of Works for construction and equipping of the facility, Leasing of the facility under PPP arrangement for operationalization, Continued promotion of milk production amongst farmers,	2 years	520,000	680,000,000	County Government of Bungoma/Development Partners	CGB
Establishment of an Agricultural Enterprise Development	To enhance growth of the cooperative movement	Enhanced incomes and livelihoods amongst	Feasibility study for the establishment of the Fund, Provision of relevant policy, legal and regulatory framework for	2 years	558,000	500,000,000	CGB	CGB

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Support Fund targeting cooperatives	in the County.	cooperative members in the County	establishment of the fund, Budgetary allocation of funds for operationalization of the Fund, Sensitization of Cooperative Societies on the Fund					
Farm Input Support Program	To enhance production and productivity in the sector	Enhanced incomes and livelihoods amongst farmers and other value chain actors in the County	Feasibility study and Baseline Setting, Provision of relevant policy and legal framework for the program, Budgetary allocation of funds, Recruitment of program beneficiaries, Procurement and distribution of farm inputs to farmers across the county, continuous program M&E	Annual	500,000	2,000,000,000	CGB/Partners	CGB/Partners
Coffee Development	To enhance production, value addition, processing and marketing in the coffee value chain	Enhanced production, incomes and livelihoods amongst coffee farmers and other value chain actors in the County	coffee input support, Feasibility and Pre-investment study for the establishment of the coffee milling Plants at Musese and Chesikaki, Environmental Impact Assessment for establishment of the facility, Provision of relevant policy and legal framework for establishment of the facility, Budgetary	5 Years	210,000	500,000,000	CGB/NG/Partners/: Cooperative Unions	CGB/NG

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			allocation of funds for construction and equipping of the facility, Procurement of Works for construction and equipping of the facility, Facilitating operationalization of the facility by the Cooperative Unions, Continued promotion of coffee production amongst farmers,					
Establishment of a Tea Processing Plant in Mt. Elgon	To enhance value addition, processing and marketing in the Tea value chain	Enhanced incomes and livelihoods amongst tea farmers and other value chain actors in the County	Feasibility and Pre-investment study for the establishment of the Tea Processing Plant, Environmental Impact Assessment for establishment of the facility, Provision of relevant policy and legal framework for establishment of the facility, Budgetary allocation of funds for construction and equipping of the facility, Procurement of Works for construction and equipping of the facility, Leasing of the facility under PPP arrangement for operationalization,	5 years	50,000	350,000,000	CGB/NG	CGB/NG

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			Continued promotion of tea production amongst farmers					
Upper Nzoia Multipurpose Dam and Irrigation Scheme	Enhance agricultural productivity and availability of water for domestic use	Enhanced agricultural productivity and availability of water for domestic use	Feasibility Study, Funding MoU, Community mobilization and compensation, Infrastructural development, commissioning and use	5 Years	200,000	12.5 billion	Development Partners/NG/CG B	Development Partners/NG/CGB
Sio-Sango Multipurpose Dam and Irrigation Scheme	Enhance agricultural productivity and availability of water for domestic use	Enhanced agricultural productivity and availability of water for domestic use	Feasibility Study, Funding MoU, Community mobilization and compensation, Infrastructural development, commissioning and use	5 Years	200,000	6.5 billion	Development Partners/NG/CG B	Development Partners/NG/CGB

3.5 Cross-Sectoral Linkages

This section provides mechanisms/actions on how sectors will build synergies and address adverse effects that may arise from the implementation of the programmes. Indicated for each programme are the considerations that will be made in respect to harnessing cross-sector synergies arising from programmes, and mitigation measures that may be adopted to avoid or manage potential adverse cross-sector effects.

The information is provided in Table 24.

Table 24: Cross-Sectoral Linkages

Programme Name	Linked Sector	Cross-Sector Linkages		Measures to Harness or Mitigate the Effects
		Synergies	Adverse Effects	
Crop development and management	Roads and Energy	Construction of feeder roads to facilitate transportation of farm produce to markets	Release of storm water from road drainage to farms leading to soil erosion	Compliance with Soil and Land Management (SLM) in road construction
	Trade, industrialization and tourism	Establishment of markets and agro-processing facilities	Conflict on responsibility for management and development of agricultural market facilities	Establishment of coordination mechanisms between the two entities on management and development of agricultural market facilities
	Environment, water and natural resources	Promotion of agricultural soil and water conservation	Duplication of roles in climate change mitigation and adaptation	Formulation of policy framework with clear roles and coordination mechanisms between the two entities
Livestock development and management	Lands, Housing and Physical Planning	Acquisition of land for establishment of livestock sale yards (auction rings)	Conflict on management responsibility of livestock sale yards	Establishment of coordination mechanisms between the two entities

CHAPTER FOUR: IMPLEMENTATION MECHANISMS

4.1 Institutional and Coordination Framework

4.1.1 Institutional Arrangement

This section highlights institutions and their specific roles in the implementation of the sectoral plan. The institutions range from County Government Departments as well as other players such as the National Government Ministries, Departments and Agencies (MDAs), and Non-State Actors. County Government institutions include County Executive Committee, County Assembly, County Planning Unit, County Sectoral Committees, County Budget and Economic Forum (CBEF), Intergovernmental Sectoral Committees under Intergovernmental Budget and Economic Council (IBEC), among others. Table 25 highlights the various institutions and their specific roles;

Table 25: Institutional Arrangement

S/No.	Institution	Role in Implementation of the Sector Plan
1	County Executive Committee	<ul style="list-style-type: none"> • Policy formulation, implementation, and evaluation. • Preparation of plans and budgets <ul style="list-style-type: none"> • Coordination and facilitation of Program implementation, monitoring, evaluation, and reporting. • Coordinate with County Assembly for approval of plans and budgets.
2	County Assembly	<ul style="list-style-type: none"> • Legislation on policies, bills, and regulations • Oversight on program implementation • Representation of community on project identification and prioritization
3	County Government Departments	<ul style="list-style-type: none"> • Policy formulation, implementation, evaluation and reporting. • Program implementation, monitoring, evaluation, and reporting • Facilitates extension services • Provides technical services
4.	County Planning Unit	<ul style="list-style-type: none"> • Preparation of county plans (CIDP, Sectoral, Strategic, ADPs, etc) • Preparation of county budget documents (CBROP, MTEF, CFSP, CDMSP, Appropriation Acts) • Monitoring, evaluation, and reporting on program implementation. • Plans/Budget review • Collect county statistical data
5.	Office of the County Commissioner	<ul style="list-style-type: none"> • Coordinate peace and security of county citizens • Public sensitization on government projects in the county • Coordinate National Government’s MDAs in the county • Monitor, evaluate and report on National Government

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		projects in the county.
6.	National Planning Office at the county	<ul style="list-style-type: none"> • Technical backstopping • Streamlining National programs in the CIDP • Resource mobilization
7.	Other National Government Departments and Agencies at the county	<ul style="list-style-type: none"> • Collaborate with counterpart county departments and agencies on policy formulation, implementation and evaluation. • Collaborate with counterpart county departments and agencies on programs/project implementation in their respective departments. • Provide information concerning the programs in the department
8.	Development Partners	<ul style="list-style-type: none"> • Technical and Policy Support • Capacity Development • Project and Program funding
9.	Civil Society Organizations	<ul style="list-style-type: none"> • Advocacy and community sensitization • Resource Mobilization
10.	Private Sector	<ul style="list-style-type: none"> • Provide market for produce • Promote value addition • Resource mobilization
11.	Training and Research institutions	<ul style="list-style-type: none"> • Capacity building and Research • Knowledge dissemination • Policy formulation
12.	Regulatory Bodies	<ul style="list-style-type: none"> • Establishment of standards • Quality controls • Regulation of practices • Policy formulation
13.	Regional bodies/associations	<ul style="list-style-type: none"> • Resource Mobilization. • Capacity development • Value Addition
14.	Public/Citizens	<ul style="list-style-type: none"> • Participate in project identification, monitoring and evaluation. • Use of service/ Products • Service provision • Value addition
15	Special Interest Groups	<ul style="list-style-type: none"> • Provide technical support • Mobilization of funds • Advocacy • Spiritual, guidance and Counseling services
16.	Media	<ul style="list-style-type: none"> • Advocacy • Dissemination of information

4.1.2 Coordination Framework

This section provides a structure for effective coordination of the implementation of the sector plan. The role and reporting obligations of each institution/committee in the coordination is clearly indicated.

The coordination structure encompasses institutions and committees at various levels namely Office of the Governor, the County Executive Committee, County Assembly, County Departments, National Government Institutions and Development Partners. The county executive is responsible for policy formulation, budgeting, resource mobilization and partnership/collaboration enhancement for the implementation of the sector plan. The County Assembly is responsible to offer oversight, representation and legislation. The county executive carries out its mandate through county departments. The County department of Agriculture, Livestock, Fisheries, Irrigation and Cooperatives is responsible for the implementation of the Sectoral plan. There are two committees at this level namely JASSCOM and CASSCOM which play a coordination role between the County and the national government as well as coordination within the sector departments respectively. The other responsibility of the committees is to harmonize interactions and engagement of partners.

The second level is that of enablers. This level constitutes the Chief Officers who are the connectors between the implementation level and the executive. This is where resources are accounted for, implementation is planned and execution monitored. The major role in provision of an enabling environment.

The last level is the implementation level comprising the directorates and field implementation units (Sub-county, Ward and locational offices). Here is where the extension, research and development interventions interact with the Value Chain Actors to translate the policies to reality.

4.2 Financing Mechanism

The sector will draw funding from an array of partners to implement the highlighted interventions. These include the County government through the annual budgeting process, the National government through grants and various support initiatives towards programmes and projects, development partners supporting various programmes and Projects (EU, SIDA, WB, GIZ, DANIDA, IFAD, amongst others) and from stakeholders working with the various value chains and enterprises. The Programmes and projects include NARIGP, ASDSP, AgriBiz, AgriFi, and MARK-UP. There are also partners and stakeholders whose funding is directly to the farmers/Value Chain Actors while others channel their support to joint activities based on agreed budgets but the expenditure point is at their organizational structures. Table 26 summarizes the various funding sources for implementation.

Table 26: Summary of Financial Resource Requirements

Programme	Source of Funding	Amount
General Administration, Planning and Support Services	CG	4,500,000,000.00
	NG	500,000,000.00
	Partners	800,000,000.00
Crops Development and Management	CG	2,000,000,000.00
	NG	2,000,000,000.00
	Partners	4,000,000,000.00
Irrigation Development and Management	CG	500,000,000.00
	NG	200,000,000.00
	Partners	16,500,000,000.00
Livestock development and Management	CG	1,500,000,000.00
	NG	1,000,000,000.00
	Partners	3,000,000,000.00
Fisheries Development and Management	CG	2,000,000,000.00
	NG	200,000,000.00
	Partners	230,000,000.00
Cooperative Development and Management	CG	1,500,000,000.00
	NG	1,000,000,000.00
	Partners	1,000,000,000.00
Institutional Development and Management	CG	800,000,000.00
	NG	400,000,000.00
	Partners	300,000,000.00
Total		43,930,000,000.00

4.3 Capacity Development

This section provides measures to address capacity gaps that may hinder efficient and effective implementation of the initiatives in the Sectoral plan. The capacity gaps to be addressed will include those related to: skills and Knowledge; systems and processes as well as tools and equipment.

The identified capacity gaps relate to both skills and tools/equipment. The gaps relating to skills and knowledge include short courses to improve on technical skills in

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every specialization in the various departments. There are also statutory promotional courses such as supervisory skills training, senior management course and strategic leadership development skills training. On the other hand, the capacity in terms of tools necessary for performance includes means of mobility, equipment, office space and utilities. There is also need for recruitment and deployment of additional staff to bridge the extension staff to farmer ratio.

Table 27: Capacity Gaps and Proposed Interventions

S/No	Existing Gap	Proposed Interventions
1.	Inadequate office space for operations of the department of Agriculture, Livestock, Fisheries, Irrigation and Cooperatives and partners	Expansion and renovation of existing HQ office blocks, renovation of sub-county offices and provision of office space where it lacks at Ward level
2.	Inadequate working tools and equipment	Provision of working tools and equipment to facilitate extension service provision
3.	Inadequate means of transport (MV and Motor Cycles) for extension service provision	Repair and maintenance of available MVs and MCs. Provision of MVs and MCs based on areas of need
4.	Inadequate technical staff in the various sub sectors (Crops, Livestock, Veterinary, Fisheries, Irrigation and Cooperatives	Recruitment of technical officers and coordination of partners providing extension services to build on synergies in extension service provision.
5.	Inadequate knowledge and skills	Continuous capacity building of service providers

4.4 Risk Management

The County Administration recognizes that the implementation of this Plan is dependent on the ability to anticipate, plan for and withstand both identified and non-identified risks. The county is prone to both natural and manmade disasters as listed in table 28.

Table 28: Risk Analysis

Risk Category	Risk	Risk Implication	Risk level (Low, Medium, High)	Mitigation measures
Financial	Limited financial resource	Scaled down, delayed or non-implementation of projects	High	Mobilization for more resources
	Volatile economic environment	<ul style="list-style-type: none"> • Delayed implementation/uti lization of projects • Low investment levels 	High	<ul style="list-style-type: none"> • Prioritize projects according to community needs • Develop measures to cushion citizenry.
	Supplier risk	Failure/Faulty/inadequat e supplies	Moderate	Supplier sensitization/empowerme nt. Enforcement of legal framework
	Grants	Slow /stalled	High	Enhancing compliance to

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	delay/failure risk	implementation of projects		MOUs/agreements
	Fraud	Loss of resources	Moderate	Enhanced internal control mechanisms.
Technological	Rapid technological changes	Out dated systems	High	Keep updating systems to move with the times.
	Cyber attack	Loss of information	High	Enhance data security.
Climate Change	Natural disasters such as floods, droughts, fires, Landslides, Thunderstorms and Lightning among others.	<ul style="list-style-type: none"> • Slow project implementation. • Destruction of infrastructure resources. • Displacement of human settlements. 	Moderate	Enhance emergency support. Developing early warning systems, capacity development of the actors/vulnerable, and insurance of enterprises
	Pests and diseases	<ul style="list-style-type: none"> • Reduced production/productivity • Loss of crops and livestock. 	High	Developing early warning systems, farmer capacity development for pest and disease management, facilitating insurance of the enterprises
	Increased weather variability	<ul style="list-style-type: none"> • Slow project implementation. • Environmental degradation • Reduced production/productivity • Loss of crops and livestock. 	High	Promotion of Climate Smart Agriculture (CSA) and Green Growth (GG) technologies. Developing early warning systems, insurance of the enterprises
Organizational	Attrition of human resource	Loss of specialized knowledge	High	Continuous capacity building. Keeping government workers happy and motivated by; Use of modern technology; offer remote/hybrid job roles; highlight good work and provide feedback
	Workplace security (theft, terrorist attacks, degraded infrastructure)	Loss of human resource/assets	Moderate	Enhance security measures.
	Workplace injuries and infections	Low productivity	High	Provide protective gears to workers
	Liabilities arising from service provision	Loss of value for money	Low	Enforcement of professionalism Operationalize Risk fund
	Drugs and substances abuse	Low productivity	High	Enhance guidance, counselling and mentorship programs

CHAPTER FIVE: MONITORING AND EVALUATION FRAMEWORK

5.1 Overview

This chapter outlines how the plan will be monitored and evaluated during and after its implementation. The M&E processes, methods and tools are guided by Section 232 of the Constitution and all the legal provisions that provide for M&E, County M&E policy, CIMES guidelines, Kenya Norms and Standards for M&E and Kenya Evaluation Guidelines. This chapter also highlights the; the proposed M&E structure; data collection, analysis, reporting and learning; M&E outcome indicators tracking; dissemination and feedback mechanism.

5.2 County Monitoring and Evaluation Structure

This section summarizes established systems and structures in the county to organize the M&E process for implementing the plan. This includes the institutional arrangement of the M&E function (Directorate/Unit), various committees and coordination of M&E activities i.e., departmental focal persons, champions and stakeholder engagement fora as stipulated in the CIMES guidelines.

5.3 M&E Institutional Framework

This section provides the M&E institutional arrangements in the county. The institutional structures will strengthen coordination of the County M&E system. The institutions encompasses both levels of government, non-state actors (development partners working in the county, private sector and civil society organizations) and the citizens.

Figure 4: County Committees



Responsibilities of Major Committees on M&E Preparation and Reporting

Table 29: Responsibilities of Major Committees on M&E Preparation and Reporting

Committee or Forum	Members	Responsibilities	Frequency of Meetings	Remarks
County Assembly Committee responsible for Finance & Planning	MCA's	<ul style="list-style-type: none"> Receive county M&E reports, review and present to the County Assembly for approval Authorise the governor to present the report at the summit 	As per the county assembly calendar	The Committee is in place
County Inter-governmental Forum (CIF)	Chair: <ul style="list-style-type: none"> Governor or Deputy Governor in Governor's absence, or member of Executive Committee nominated by the Governor (As per the IGRA 2012) Membership:	<ul style="list-style-type: none"> Receive, review and endorse M&E reports from CoMEC Present M&E reports to the County Assembly Committee responsible for Economic Planning 	Quarterly	The Committee is in place

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Committee or Forum	Members	Responsibilities	Frequency of Meetings	Remarks
	<ul style="list-style-type: none"> All Heads of Department of National Government at County level including County Commissioner County Executive Committee members or their nominees in writing Convenor: <ul style="list-style-type: none"> CEC member responsible for finance and economic planning functions at the county level 	<ul style="list-style-type: none"> Give policy directions on M&E at the county level 		
County Citizen Participation Fora (As per the Public Participation Bill 2018)	Chair: <ul style="list-style-type: none"> CEC or Chief Officer responsible for the topic of the forum Membership: <ul style="list-style-type: none"> Representatives of NGOs, and Civil Society Organisations Representative of Evaluation Society of Kenya Representatives of rights of minorities, marginalized groups and communities Representative of private sector business community. Development partners’ representatives in the county Convenor: <ul style="list-style-type: none"> Responsible CEC or Chief Officer. 	<ul style="list-style-type: none"> Participate in development of M&E indicators to monitor and evaluate CIDP Review and give feedback to M&E reports 	Annually	The Committee is in place
County M&E Committee (CoMEC)	Co-Chairs: <ul style="list-style-type: none"> County Secretary and senior representative of the national government nominated by the County Commissioner in writing Membership: <ul style="list-style-type: none"> Heads of technical departments of the national government 	<ul style="list-style-type: none"> Oversee delivery, quality, timeliness and fitness for purpose of M&E reports Drive service delivery through Results Based Management Receive, review and approve county and sub-county M&E 	Quarterly	The Committee is in place

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Committee or Forum	Members	Responsibilities	Frequency of Meetings	Remarks
	<ul style="list-style-type: none"> at county level • County chief officers • County Assembly Clerk • Court Registrar • Representatives from devolved funds • Technical Representatives managing all other Non- • Devolved Funds in the County <p>Convenor:</p> <ul style="list-style-type: none"> • Chief Officer responsible for Economic Planning 	<ul style="list-style-type: none"> work plans and M&E reports • Convening County Citizen Participation fora to discuss M&E reports • Mobilization of resources to undertake M&E at county and sub-county level • Approve and endorse final county indicators • Submission of M&E reports to NIMES, CIF, CoG, constitutional offices and other relevant institutions • Dissemination of M&E reports and other findings to stakeholders, including to • County Fora 		
Technical Oversight Committees (TOC)	<p>Chaired by:</p> <ul style="list-style-type: none"> • Chief Officer responsible for Economic Planning <p>Membership:</p> <ul style="list-style-type: none"> • Up to ten technical officers versed in M&E from a balanced group of county departments and non-devolved function department <p>Convenor:</p> <ul style="list-style-type: none"> • M&E Director 	<ul style="list-style-type: none"> • Identify, commission and manage evaluations • Review of the M&E reports • Present M&E reports to CoMEC • Capacity building for M&E • Sets the strategic direction for CIMES • Approves M&E Directorate’s work plan and advises M&E Directorate on actions to be taken on various M&E issues • Approves indicator reports for use by • CoMEC • Endorses M&E Directorate’s reports to be presented to CoMEC 	Quarterly	The Committee is in place
Sector Monitoring	<p>Chair:</p> <ul style="list-style-type: none"> • Co-chaired between a 	<ul style="list-style-type: none"> • Produce sector M&E reports 	Quarterly	The

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Committee or Forum	Members	Responsibilities	Frequency of Meetings	Remarks
& Evaluation Committees (SMEC)	<p>Chief Officer from a relevant county government department and Director from the relevant department of the National government at county Membership:</p> <ul style="list-style-type: none"> • Sector relevant county departments’ Chief Officers, equivalent national government representative from that sector and sector relevant CSOs. (The • County to define sector as per MTEF) <p>Convenor:</p> <ul style="list-style-type: none"> • Chief Officer responsible for the relevant department 	<ul style="list-style-type: none"> • Develop sector indicators • Undertake sector evaluations • Present sector M&E reports to the TOC 		Committee is in place
S CoMEC	<p>Co-chair:</p> <ul style="list-style-type: none"> • Sub-county administrator and • DCC <p>Membership:</p> <ul style="list-style-type: none"> • HODs at the sub-county level, development partners, CSOs etc. <p>Convener:</p> <ul style="list-style-type: none"> • Sub-county M&E officer 	<ul style="list-style-type: none"> • Produce sub-county M&E reports • Present M&E reports to the TOC • Develop M&E indicators 	Quarterly	The Committee is in place
Ward MEC	<p>Co-chair:</p> <ul style="list-style-type: none"> • Ward Administrator and ADCC <p>Membership:</p> <ul style="list-style-type: none"> • HODs at the ward level, development partners, CSOs etc. <p>Convener:</p> <ul style="list-style-type: none"> • Ward Administrator 	<ul style="list-style-type: none"> • Produce ward M&E reports • Present M&E reports to the TOC • Develop M&E indicators 	Quarterly	The Committee is in place
Village MEC	<ul style="list-style-type: none"> • As per the village council composition 	<ul style="list-style-type: none"> • Participate in the development of indicators process • Participate in monitoring of projects in respective villages • Provide feedback on M&E reports 	Quarterly	The Committee is in place

Responsibilities and Functions of Stakeholders in the Institutional Framework

The Responsibility and functions of the different stakeholders with relevance for M&E at county level are outlined in table 30. Governance, monitoring and reporting of the Sector Plan implementation progress are prescribed in section 54 of County Government Act (2012), including committee structures, roles, responsibilities and memberships. Performance Management joins up all aspects of county operations and development within a single, integrated strategic process. The performance management framework connects activities from the M&E Results Matrix in the Sector Plan, CIDP III, MTP IV and Vision 2030, to the Performance Contracts of individual senior management staff members, and to the operation of service delivery and the implementation of projects and programmes in the county. The M&E system should generate reports to be shared between the project manager and the M & E director, who approves the project M&E information, the Performance Management System (PMS) Unit, and the governors’ and county commissioners’ offices, which uses the information. To support the Performance Management and M&E processes of the county, the CIMES organogram is presented in Figure 5.

Table 30: Responsibilities of Stakeholders in M&E Reporting

Stakeholder	Responsibilities
County Governor	<ul style="list-style-type: none"> • Chair of the CIF • Presents county M&E reports to the Summit • Provides vision and leadership and drives delivery of the CIDP • Holds county CEC Members to account for their M&E targets • Holds CEC Members and County Secretary to account for use of the PMS to provide real-time reporting on service delivery and results • Ensuring that M&E structures are established in the county • Championing M&E and Performance Management as tools for delivery of development and services in the county • Promoting the role of the M&E Directorate in advancing Results Based Management and public service delivery that ensures the CIDP objectives and outcomes meet the needs of citizens
County Commissioner	<ul style="list-style-type: none"> • • Coordinate the national government agencies in the county
County Secretary	<ul style="list-style-type: none"> • Co-chair of the CoMEC • Responsible for coordination of activities in county government • Personally accountable for ensuring that all county government officers operate as required • Provide timely and accurate reporting according to the County PMS Policy • Ensure that the Chief Officer responsible for Economic Planning operationalizes the M&E function as a tool for delivery of development and services in the county
Chief Officers in Respective	<ul style="list-style-type: none"> • Co-chair respective SMEC • Develop sector specific M&E indicators

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Stakeholder	Responsibilities
Sectors	<ul style="list-style-type: none"> • Oversee preparation of sector M&E reports • Present sector M&E reports to the TOC • Collaborate with M&E Directorate in undertaking sector evaluations • Liaise with sector heads of National government agencies at the county on M&E
Directors of National Government Agencies of Respective Sectors at the County	<ul style="list-style-type: none"> • Co-chair respective SMEC • Develop sector specific M&E indicators • Oversee preparation of sector M&E reports • Collaborate with M&E Directorate in undertaking sector evaluations • Liaise with sector heads at the county government level on M&E
Economic Planning Director	<ul style="list-style-type: none"> • Ensures that M&E is mainstreamed in county economic planning
Directors of Sector Departments at the County Government Level	<ul style="list-style-type: none"> • Prepare departmental M&E reports • Prepare M&E indicators for the department • Collaborate with M&E Directorate in undertaking evaluations in their respective departments • Present departmental M&E reports to the SMEC • Focal persons for M&E in their respective departments
County M&E Director	<p>A. Set up the monitoring and evaluation system:</p> <ul style="list-style-type: none"> • Develop the overall CIMES framework • Prepare the M&E plan with a detailed budget • Prepare county M&E framework • Supervise the work of the Monitoring and Evaluation office staff; provide guidance and technical support • Develop county M&E indicators in collaboration with KNBS and MED to ensure standard definition and classification • Establish contacts with national and other county monitoring and evaluation stakeholders • Review and provide feedback to programmes on the quality of methodologies established to collect monitoring data, and document the protocols that are in place for the collection and aggregation of this data • Establish an effective system for assessing the validity of monitoring and evaluation data through a review of CIDP implementation activities, completed monitoring forms/databases, and a review of aggregate-level statistics reported <p>B. Implementation of monitoring and evaluation activities</p> <ul style="list-style-type: none"> • Oversee the monitoring and evaluation activities included in the CIDP, with particular focus on results and impacts as well as in lesson learning • Promote a results-based approach to monitoring and evaluation, emphasizing results and impacts • Coordinate the preparation of all monitoring and evaluation reports; guide staff and executing partners in preparing their progress reports in accordance with approved reporting formats and ensure their timely submission • Prepare consolidated progress reports for the CoMEC, including identification of problems, causes of potential bottlenecks in implementation, and provision

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Stakeholder	Responsibilities
	<ul style="list-style-type: none"> of specific recommendations • Check that monitoring data are discussed in the appropriate committees, (including citizens participation fora), and in a timely fashion in terms of implications for future action • Undertake regular field visits to support implementation of monitoring and evaluation, check the quality of data produced, and identify where adaptations might be needed; monitor the follow up of evaluation recommendations with Programme Managers • Foster participatory planning and monitoring • Organize and provide refresher training in monitoring and evaluation for CIDP projects/ programmes and other agencies implementing staff, county-based NGOs and key county stakeholders with a view to developing local monitoring and evaluation capacity • Undertake evaluations in the county <p>C. Knowledge management</p> <ul style="list-style-type: none"> • Promote knowledge management and information sharing of best practices • Facilitate exchange of experiences by supporting and coordinating participation in network of CM&EOs among counties • Organize county M&E day to share experiences • Identify and participate in additional networks such as NIMES networks that may also yield lessons that can benefit implementation of CIMES
The National Treasury and Planning (MED)	<ul style="list-style-type: none"> • External Facilitator and neutral validator • Receive and consolidate county M&E reports • Capacity building for CIMES • Set evaluation standards • Update the CIMES Guidelines • Technical backstopping for CIMES
County M&E Directorate: With two sub-units (1 for county & 1 for national)	<p>Composition: To be headed by a County M&E Director, assisted by several sector M&E officers/ Focal persons, each responsible for compilation of M&E data for a number of projects/ programmes of specified departments and national government: Several IT Officers assisting the county departments with M&E computerization activities. The M&E Officer and ICT Officer ensure that the PMS system is supported by projects in their county departments. M&E officer works with the M&E Technical Committee.</p> <p>Responsibilities:</p> <ul style="list-style-type: none"> • The overall responsibility for ensuring use of the M&E system in the county lies with the Director of M&E, who works closely with all Directors in the county to ensure timely production of M&E reports • Provide technical support and coordination of CIMES, including its institutionalization within the county • Prepare periodic CIMES performance reports for presentation to CoMEC • Supporting the development of capacity for M&E through training, coaching and mentoring. • Coordinate regular M&E reports produced within the county departments and other agencies resident in county • Support the implementation of the CIMES Guidelines and Standards as the main M&E tool across the county • Maintaining the support systems that underpin reporting, such as the

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Stakeholder	Responsibilities
	<p>monitoring website and database of M&E (APR), comprehensive Public Expenditure Review (CPR), evaluations, Public Expenditure Tracking Surveys (PETS) and Metadata, etc.)</p> <ul style="list-style-type: none"> • Systematically capture lessons learnt from successes, challenges and failures
Service Delivery Unit (SDU)	<ul style="list-style-type: none"> • Is located in the Office of the Governor, and provides the engine to drive priority projects and programmes for the Governor • To remove duplication of efforts from the M&E Directorate, SDU undertakes monitoring of county government activities • Is led and managed by a director • Provides timely reporting to the governor on service delivery • Conducts field visits on service delivery sites and stations to monitor the quality of services given to the citizens • Uses technology-supported Performance/M&E/Reporting systems for efficient, accountable and transparent working • Ensures programmes are implemented as per, the CIDP and the Annual Work Plans • Shares its findings with line departments to enhance service delivery • Monitors service charter to ensure citizens expectations are met • Provides a platform to address citizens’ concerns e.g the governors hotline, website, social media etc.

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Figure 5: CIMES Organogram

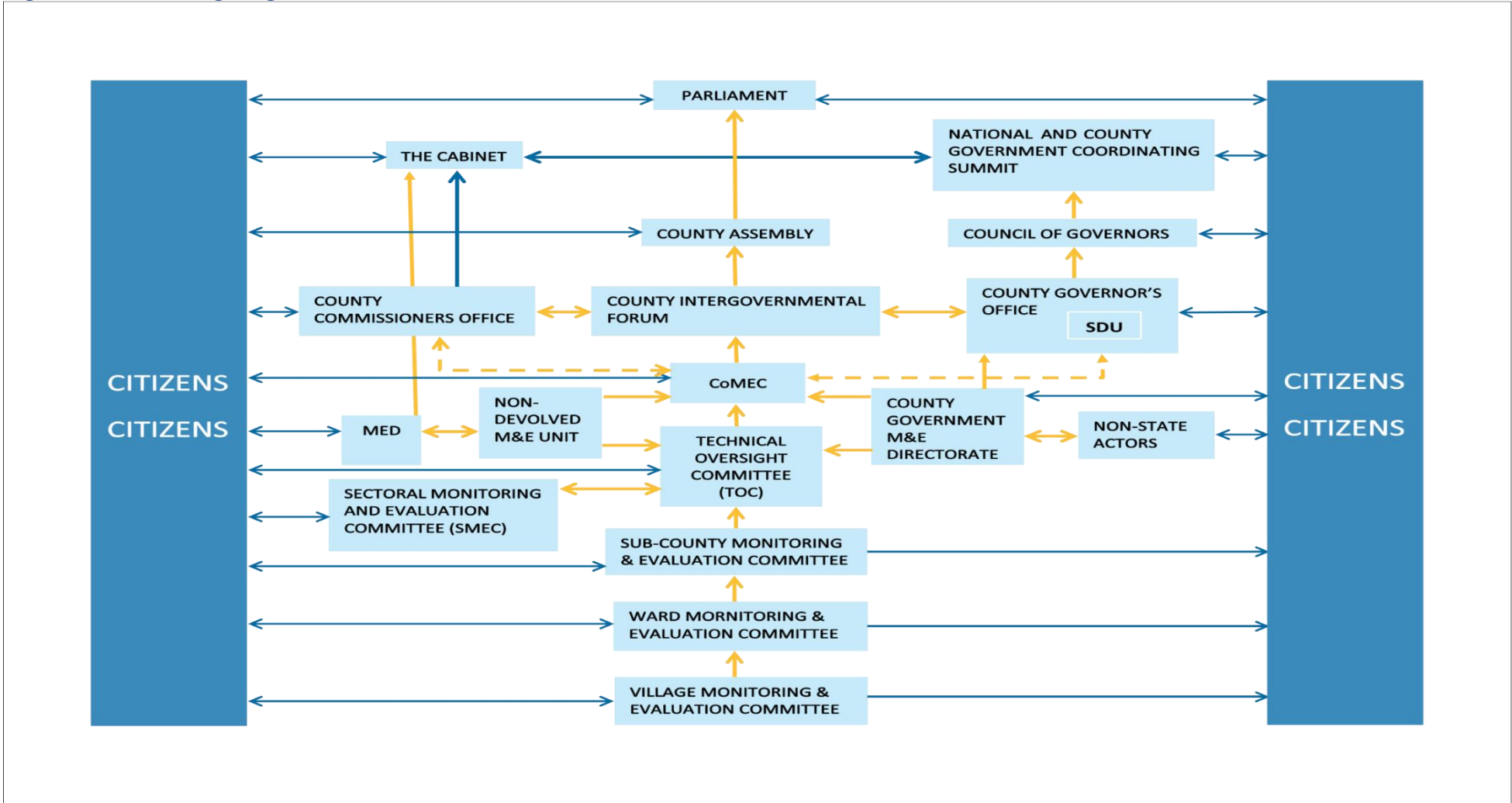


Figure 7: Proposed CIMES organogram

5.4 M&E Capacity

This section discusses M&E skills available, the resources allocated for M&E function and technological requirements to implement M&E function.

Capacity Development

The officers charged with overseeing M&E activities at all levels are equipped with skills and capacities to perform their roles effectively. To embrace automation for real time reporting, training on ICT platforms (e-CIMES, ODK, amongst others) was done to support data collection, uploading, downloading and data analysis for continuous updating of databases and use of M&E information by all stakeholders. The directorate responsible for M&E in collaboration with stakeholders shall develop a Capacity Development Strategy to guide M&E capacity development in the County.

Financing Arrangements

Effective implementation of the M&E function requires provision of adequate financial resources. The budget will cover staffing, external technical support, capacity building; capital expenses and operational expenses. The National M&E Policy requires Ministries, Departments, Agencies and Counties (MDACs) to have a separate budget component for M&E with adequate resources. In addition, all development programmes/projects will provide budgets earmarked for monitoring and evaluation. The Directorate responsible for M&E in the County in collaboration with stakeholders will develop a Resources Mobilization Strategy to enhance the capability to undertake M&E function.

5.5 M&E Outcome Indicators

This section presents programme outcome indicators by sectors as presented in chapter four. This is presented in Table 31.

Table 31: Outcome Indicator Reporting

Programme	Outcome	Outcome Indicator(s)	Baseline		Mid Term Target	End Term Target	Reporting Responsibility
			Year	Value			
Crop Development and Management	Increased crop production, productivity, value addition, marketing, and income	Share of crops sub-sector contribution to GCP					
		% of post-harvest losses of maize					
		MT of maize produced	2022	504.28	700	800	ALFIC Department
		MT of beans produced	2022	46.87	100	120	ALFIC Department

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Programme	Outcome	Outcome Indicator(s)	Baseline		Mid Term Target	End Term Target	Reporting Responsibility
			Year	Value			
		MT of sorghum produced	2022	0.21	3	5	ALFIC Department
		MT of finger millet produced	2022	1.22	3	5	ALFIC Department
		MT of potato produced	2022	-	-	-	ALFIC Department
		MT of sweet potato produced	2022	41.04	100	120	ALFIC Department
		MT of cassava produced	2022	0.84	5	7	ALFIC Department
		MT of groundnut produced	2022	1.46	3.0	5	ALFIC Department
		MT of Coffee produced	2022	-	-	-	ALFIC Department
		MT of tea produced	2022	-	-	-	ALFIC Department
		MT of cotton Produced	2022	-	-	-	ALFIC Department
		Extension Officer to Farmer Ratio	2022	1:1850	1:600	1:600	ALFIC Department
Irrigation and Drainage Development and Management	Increased adoption of irrigation and drainage technologies	Ha under Irrigation	2022	400	1000	2500	ALFIC Department
		Ha under drainage	2022	160	400	1000	ALFIC Department
		Proportion of farmer households undertaking irrigation	2019	2.2	15	30	ALFIC Department
Livestock Development and Management	Increased livestock production, productivity, value addition and incomes	Share of livestock subsector contribution to GCP	2022	-	-	-	ALFIC Department
		Tonnes of beef produced	2022	4326.76	6000	7500	ALFIC Department
		Tonnes of milk produced	2022	93,518.77	140,000	150,000	ALFIC Department

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Programme	Outcome	Outcome Indicator(s)	Baseline		Mid Term Target	End Term Target	Reporting Responsibility
			Year	Value			
		% of post-harvest losses of milk	-	-	-	-	
		Tonnes of chevon produced	2022	160.15	200	300	ALFIC Department
		Tonnes of Mutton produced	2022	166	200	300	ALFIC Department
		Tonnes of pork produced	2022	21.9	40	100	ALFIC Department
		Tonnes of rabbit meat produced	2022	4.8	8	12	ALFIC Department
		Tonnes of poultry meat produced	2022	920.45	1300	2000	ALFIC Department
		Tonnes of honey produced	2022	386.5	500	750	ALFIC Department
		Tonnes of wax produced	2022	32.7	50	100	ALFIC Department
		Tonnes of eggs produced	2022	3,025,074	4,000,000	5,000,000	ALFIC Department
		No. of hides produced	2022	22,290	35,000	50,000	ALFIC Department
		No. of skin produced	2022	11,115	16,000	25,000	ALFIC Department
		Extension Officer to Farmer Ratio	2022	-	-	-	ALFIC Department
Fisheries Development and Management	Increased fisheries production, productivity, value addition and incomes	Tonnes of fish produced	2022	12.6	45	75	ALFIC Department

5.6 Data Collection, Analysis and Reporting

This section provides the main methods and tools that will be used for data collection, archiving, analysis and reporting arrangements in line with the National M&E Norms and Standards. This includes development of Sector plan/CIDP Indicator Handbook, standard reporting templates based on the County Annual Progress Reports

Guidelines. The County Government will also state how they integrate technology in M&E through the use of e-CIMES. The section also provides the types of M&E reports to be prepared and the frequency of reporting.

The Sector Plan monitoring strategy includes a clear data collection and analysis plan, detailing the following: units of analysis (for example, county, sub-county, village, department and section); sampling procedures; data collection instruments to be used: frequency of data collection; expected methods of data analysis and interpretation; those responsible for collecting the data; data collection partners, if any; those responsible for analyzing, interpreting and reporting data; for whom the information is needed; dissemination procedures; and follow up on findings. The system will provide an integrated platform for generating and sharing M&E data without duplication.

Monitoring & Evaluation Tools

i. M&E plan:

All projects and programmes shall include an M&E plan prior to approval. Minimum requirements for Monitoring and Evaluation plan shall include SMART indicators for implementation and results; Baseline data for the project or programme indicators; and identified reviews and evaluations to be undertaken.

County departments are accountable for establishing M&E plans for their individual departments, and also for the M&E results structure, which links all programmes/projects of the department to the expected outcomes. This is the basis for performance monitoring and reporting, to ensure adherence to the CIMES guidelines and the Kenya National M&E Policy

Sector plan/CIDP Indicator Handbook will be generated from the Programme Result Matrix and the Sectoral Outcome Indicator Reporting Section in Chapter 6. The Indicator Handbook will guide performance review and preparation of Results Based M&E framework.

ii. Results Based M&E Framework:

Effective monitoring and evaluation is based on a clear, logical pathway of results, in which results at one level lead to results at the next level. Results from 'one level flow towards the next level, leading to the achievement of the overall goal. If there are gaps in the logic, the pathway will not flow towards the required results. The major levels that the plan focuses on are: Inputs; Outputs, including processes; Outcomes and Impacts.

iii. Data Sources and Collection Method

The plan has highlighted data collection activities that will involve desktop data collation through participatory social activities from various media platforms, field surveys, daily observations and measurement sheets by project supervisors. Key data sources will include relevant institutions for administrative data, surveys and data documented by established government statistics agencies including KNBS and county statistics unit.

Table 32: Commonly Used Data Collection Methods

Recording Data Through Administrative Actions	<ul style="list-style-type: none"> Recording data through administrative actions is primarily a method of quantitative data collection.
Electronic Data Harvesting	<ul style="list-style-type: none"> <i>Electronic data harvesting</i> encompasses data collection of electronically generated data. Electronic data harvesting is a method of quantitative data collection.
Survey	<ul style="list-style-type: none"> A <i>survey</i> comprises a structured series of questions that respondents are asked according to a standard protocol. Surveys are primarily a method of quantitative data collection, though survey questions can be either quantitative or qualitative in nature, and can measure coverage (i.e., who received an intervention), satisfaction, perceptions, knowledge, attitudes, and reported actions or behaviors.
In-depth Interview (IDI)	<ul style="list-style-type: none"> An <i>in-depth interview</i> is usually conducted one-on-one by an interviewer who asks an interviewee about their knowledge, experiences, feelings, perceptions, and preferences on a certain topic. IDIs can also be conducted with a group though this may not always be appropriate or optimal. The interviewer relies on a structured, semi-structured, or unstructured question guide or list of themes/points to be discussed and often encourages a free flow of ideas and information from the interviewee. A <i>Key Informant Interview (KII)</i> is a type of IDI, whereby an interviewee is selected for their first-hand knowledge of the topic of interest or geographical setting (e.g., community). IDIs are a method of qualitative data collection.
Focus Group Discussion (FGD)	<ul style="list-style-type: none"> A <i>focus group discussion</i> involves a skilled moderator who stimulates discussion among a group of individuals to elicit experiences, feelings, perceptions, and preferences about a topic. The moderator uses a list of topics to be discussed, ensures all voices are represented, and keeps the discussion on track. Typically, groups comprise 6-12 purposively selected participants; however, size and selection techniques may vary. Focus groups differ from group interviews in format, how they are facilitated, who may be chosen to participate, and the types of data that come out of the process. FGDs are a method of qualitative data collection.
Observation	<ul style="list-style-type: none"> Direct observation entails a trained (human) observer who records data based on what they see, hear, or touch, often based on a guided protocol. Examples include observation of skills-based performance and observations of a physical environment or setting of an intervention. <i>Participant observation</i> involves a researcher participating in an activity and making observations informed by their experience interacting with others during the activity.

	<ul style="list-style-type: none"> • <i>Remote observation or remote sensing</i> entails gathering observational data through observation at a distance with the assistance of technology (e.g., satellite or aircraft-based imagery). Remote data collection is particularly useful in non-permissive environments. • <i>Observation</i> is more often used as a method of qualitative data collection but can also be used for quantitative data collection, especially when focused on the number of occurrences of a specific item, event or action.
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iv. Reporting Structures

M&E reporting is essential because it is used to: (a) determine the extent to which the sector plan and other county plans are on track and to make corrections accordingly; (b) make informed decisions regarding operations, management and service delivery; (c) ensure the most effective and efficient use of resources; (d) evaluate the extent to which the programme/project is having or has had the desired impact; and (e) whether new information has emerged that requires a strengthening and/or modification to the project management plan.

Standard reporting templates will be used to collect data and other information that will be used in compiling M&E progress reports. Tracking of progress and reporting of results will focus on inputs, processes, outputs, outcomes, and impacts of development initiatives in the County.

Performance reports will be prepared in these categories:

- Monthly reports by implementing agencies
- Quarterly reports by implementing agencies
- Annual progress reports
- Field visits and observations of programme activities and projects
- End of programme/project reports by the implementing agencies and County Monitoring and Evaluation Unit.
- Mid -Term Evaluation (Review).
- End -Term Evaluation (Review)

The table below presents some of the reports to be prepared.

Table 33: Monitoring and Evaluation Reports

	Report	Frequency	Responsibility	Target Consumers
1	Project progress reports	Daily, Monthly, Quarterly, annually	Project Supervisor	<ul style="list-style-type: none"> • Project implementation committee • Funding agencies • Oversight agencies • Public
2	Monitoring and Evaluation Reports	Quarterly	Monitoring and Evaluation	<ul style="list-style-type: none"> • Implementation agencies • Funding agencies

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			Agencies	
3	Audit Reports	Annually	Internal audit directorate/ Kenya National Audit Office	<ul style="list-style-type: none"> • Oversight agencies • Implementation agencies • Funding agencies • Oversight agencies • Public
4	Review Reports(ADP, APR, CIDP Reviews and Sectoral plans reviews	Yearly, Three year, Five Year	County Government of Bungoma	<ul style="list-style-type: none"> • Implementation agencies • Funding agencies • Oversight agencies • Public

Most of the existing M&E information is compiled manually hence the need to explore the possibilities of computerizing the existing manual systems for M&E operations. The e-CIMES will facilitate computerization of M&E data which will address issues of cooperative partnership in M&E information activities, systems compatibility and sustainability.

The respective departments, the county Intergovernmental Forum, and CoMEC should review these progress reports as a basis for decision making and for agreeing on action plans for development. To facilitate a smooth decision-making process, all agendas of relevant county meetings should include a review of indicators and sector progress reports as a standing item, with full reporting documents sent in advance to the participants. Where possible, progress reports should be available in an electronic format, and should combine data and associated narrative commentary and evidence

5.7 Dissemination, Feedback Mechanism, Citizen Engagement and Learning

This section highlights how the County Government will disseminate, get feedback, and engage citizens in M&E process as well as learning. Specific means of communicating M&E information based on unique needs of various stakeholders will be identified. The section also presents how M&E reports produced will be used for evidence based decision making.

Dissemination of M&E Reports

The Constitution of Kenya requires that M&E Reports must be available to the public, and should be shared with county citizens and other stakeholders. Disseminating M&E results is also necessary: (i) to improve programme/project interventions; (ii) to strengthen projects/programmes institutionally; (iii) to advocate for additional resources; (iv) to create citizen awareness and ownership, and promote “people-friendly” policies; (v) to ensure that county development activities are captured in CIMES and NIMES; and (vi) to contribute to the county and national understanding of what works.

Channels for disseminating M&E Reports and information will include:

- Written reports
- Oral presentation
- Press releases
- Fact sheets
- Social and new media platforms
- Performance Dashboards
- Open Data Portals
- Adhoc analyses (comparison and benchmarking)
- E-mail, text messages and mobile notification messages
- County websites

The reports shall be utilized to inform policy actions, planning and budgeting. These reports shall be widely disseminated to key stakeholders including legislators, policy makers, research institutions, development partners and members of the public for their use.

Feedback Mechanisms and Citizen’s Engagement

Public participation is a legal responsibility in implementation of the Sector Plan. In the spirit of the Constitution, citizen participation is about engaging, understanding and meeting the needs of people in the county by mobilizing all the insight, energy and commitment of individuals and groups. Participation allows the county to understand what is needed and to gain commitment to a way forward. Participation will include dissemination and gathering feedback as part of a holistic development process.

The County Executive will mobilize more innovation, opportunity, commitment and resources through community participation in development planning. Participation in development, monitoring, review and evaluation of the Sector Plan will strengthen county citizen awareness and ownership of the Sector Plan programmes/ projects that will be implemented by the county government. It will also provide a check formula to ensure value for money, accountable spending and good governance.

Participation will be used to:

- Capture the ideas, attitude, voice and commitment of stakeholders;
- Ensure and provide evidence that the county executive has met the legal duty of participatory development;
- Strengthen accountability and good governance

Knowledge Management

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Knowledge management is a process by which state and non-state actors generate value and improve their performance by gaining insights and understanding from experience, and by applying this knowledge to improve programmes' and projects' planning and delivery. Knowledge management is linked to performance enhancement and management for development results. The main purposes of knowledge management of monitoring and evaluation information are to: (a) promote a culture of learning and (b) promote application of lessons learned and evidence-based decision-making at all levels.

M&E Reporting systems and tools shall provide for documentation of success stories and best practice for cross learning (intra and inter agency peer learning at departmental levels).

5.8 Evaluation Plan

This section identifies key policies/programmes/projects for evaluations during or after the plan period. This may include rapid evaluations, impact evaluations, Sector Plan mid-term or end-term reviews or any other type of evaluation. The evaluations proposed are at program or sector level. Due to the cost implication of evaluations, the proposals are limited to key priority programs/Areas (The criteria for selecting programs to include in this plan as well as template for presenting the plan are available in the Kenya Evaluation Guidelines, 2020).

The Plan is presented in Table 34.

Table 34: Evaluation Plan

No	Policy/ Program/ Project	Evaluation Title (specifying the type)	Outcome(s)	Use of the Evaluation Findings	Commissioning Agency/ Partners	Anticipated Evaluation start date/end date	Evaluation Budget (Kshs.)	Source of Funding
1	Sector Plan	Midterm Review	Improved implementation of the sector plan	Improve implementation of sector plan	CECM in-charge of Agriculture and Livestock	June 2027	Kshs. 10 million	CGoB/ Donor
2	Sector Plan	End term Review	Improved implementation of the sector plan	Improve implementation of sector plan	CECM in-charge of Agriculture and Livestock	June 2032	Kshs. 10 million	CGoB/ Donor
3	Agricultural Input Support Programme	Midterm Evaluation of the Farm input support and crop insurance program	Improved food security and livelihoods of vulnerable farmers	Inform decisions on design and implementation of project	CECM in-charge of Agriculture and Livestock	June 2025	Kshs 5Million	CGoB
3	Extension	Evaluation	Improved	Inform	CECM in-	June 2025		

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No	Policy/ Program me/ Project	Evaluati on Title (specifyi ng the type)	Outcome(s)	Use of the Evaluation Findings	Commission ing Agency/ Partners	Anticipat ed Evaluatio n start date/end date	Evaluati on Budget (Kshs.)	Source of Fund ing
	Service Provision	n of county agricultur al extension systems	extension service provision	decisions on design and implementat ion of extension service systems	charge of Agriculture and Livestock			

ANNEX 1: IMPLEMENTATION MATRIX

Table 35: Implementation Matrix

Programme	Objectives	Sub-Programmes	Strategies/ Interventions	Implementing Agency(s)	Time Frame	Funding	
						Total Budget (Kshs in Millions)	Source (s)
General Administration, Planning and Support Services	To enhance effectiveness and efficiency in service delivery	Policy, legal and regulatory frameworks	Establishment of a Departmental Policy, Planning and Statistics Unit to spearhead the Policy/legal formulation process	DoALFIC	2023-2024	-	CGB
			Capacity Building of the Departmental Policy, Planning and Statistics Unit to spearhead the Policy/legal formulation process	DoALFIC/NG/Partners	2023-2024	15	CGB
			Fast tract finalization process of draft policies, bills and guidelines (Agriculture Sector Policy, Agriculture Soil Policy, Food Safety Policy and Bill, ATVET Policy and Bill, Agribusiness Policy, Youth Agribusiness Strategy, Potato Strategy, Roots and	DoALFIC/Partners	2023-2025	25	CGB/Partners

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			Tubers Strategy, Dairy Strategy, Cooperatives Fund Regulations, Aquaculture Policy and Fisheries Bill)				
			Domesticate National Policies and International Obligations/Formulate needed county policies, strategies and bills (Livestock Policy, Veterinary Services Policy, Irrigation Policy and Bill, Cooperatives Policy and Bill, Poultry Strategy, Aquaculture Strategy amongst others)	DoALFIC/Partners	2023-2027	18	CGB/Partners
		Sector Coordination	Formulation of policy, legal and institutional framework for sector stakeholder coordination (CASSCOM Policy, Bill, Strategies)	DoALFIC /CASSCOM	2023-2024	9.8	CGB/Partners
			Operationalization of County Agriculture Sector Steering Committee (CASSCOM) at County, Sub-county and Ward level (CASSCOM quarterly Meetings)	DoALFIC /CASSCOM	2023-2032	90	CGB/Partners
			Operationalization of the CASSCOM Thematic/Sector Working	DoALFIC/CASSCOM	2023-2032	30	CGB/Partners

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			Groups (TWGs) (TWGs quarterly Meetings)				
	Planning and financial management		Participatory and Joint Sectoral Planning and budgeting amongst stakeholders to minimize duplication	DoALFIC /CASSCOM	2023-2032	12.5	CGB/Partners
			Preparation of a 5 year Departmental strategic plan	DoALFIC	2023&2028	5	CGB/Partners
			Formulation of a resource mobilization strategy for the sector	DoALFIC	2023	3	CGB/Partners
			Quarterly Preparation and dissemination of budget/financial reports	DoALFIC	2023-2032	20	CGB/Partners
			Quarterly Preparation and dissemination of sector procurement reports	DoALFIC	2023-2032	5	CGB/Partners
		Monitoring, Evaluation, Learning and Reporting		Establishment of a Sectoral data management mechanism/system for collection, storage, retrieval and reporting of agriculture and livestock data	DoALFIC/NG/Partners	2023	5
			Quarterly update of the Sectoral data management mechanism/system for collection, storage, retrieval and reporting of agriculture and livestock data	DoALFIC/Partners	2023-2032	30	CGB/Partners

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			Development of a Monitoring and Evaluation Strategy for the Sector	DoALFIC/NG/Partners	2023	3	CGB/Partners
			Development of a Communication Strategy for the Sector	DoALFIC/NG/Partners	2023	2.5	CGB/Partners
			Establishment of a Sectoral M&E unit to spearhead M&E activities in the Sector	DoALFIC/Partners	2023	0.5	CGB/Partners
			Operationalization of the Sectoral M&E unit to spearhead M&E activities in the Sector	DoALFIC/Partners	2023-2032	20	CGB/Partners
			Continuous monitoring of sector programmes/projects/activities and submission of Quarterly Monitoring Reports to relevant authorities	DoALFIC/Partners	2023-2032	100	CGB/Partners
			Conducting Evaluation of programme/project performance to determine whether objectives are being met and submission of Evaluation Reports to relevant authorities	DoALFIC/Partners	2023-2032	75	CGB/Partners
			Preparation of documentaries on success stories to inform expanded adoption of the successful programs	DoALFIC/Partners	2023-2032	255	CGB/Partners
			Development of a standard	DoALFIC/Partners	2023	0.5	CGB/Partners

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			reporting tool for adoption by sector stakeholders for ease of compilation and harmonization				s
			Development of a central repository for all Sectoral information on policies, programs, projects and activities for ease of access (Development of an Agricultural Information Management System)	DoALFIC/Partners	2023	5	CGB/Partners
	Leadership and Governance		Sensitization of staff and enforcement of staff performance appraisal and performance contracting systems	DoALFIC	2023-2032	18	CGB/Partners
			Establishment of complaints and conflict handling mechanisms in the sector	DoALFIC	2023-2032	10	CGB/Partners
			Establishment of an elaborate asset management mechanism	DoALFIC	2023-2032	9	CGB/Partners
			Establishment and operationalization of integrity assurance systems in the sector	DoALFIC	2023-2032	12	CGB/Partners
			Establishment of a public participation framework for Sectoral Policies, Strategies, Bills, Programs, Projects and activities	DoALFIC	2023-2032	5	CGB/Partners

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			Conducting Monthly/Quarterly sector Management meetings	DoALFIC	2023-2032	12	CGB/Partners
		Human Resource Management and Development	Recruitment of technical/extension officers based on approved staff establishment to reduce the staff to farmer ratio	DoALFIC	2023-2032	120	CGB/Partners
			Preparation of Staff Training Plans and Continuous Training of staff on emerging technologies	DoALFIC	2023-2032	300	CGB/Partners
			Compliance with established human resource management framework on recruitment, deployment remuneration, working environment, promotion, discipline, exit/retirement and replacement	DoALFIC	2023-2032	4000	CGB/Partners
			Administrative and support Services	Provision of sufficient office space at the county, sub-county and ward level	DoALFIC	2023-2027	150
		Uninterrupted provision of utilities i.e electricity, water, internet, security amongst other services		DoALFIC	2023-2032	150	CGB/Partners
		Provision of Motor Vehicles and motor cycles and sufficient maintenance mechanism at the county,		DoALFIC/Partners	2023-2032	350	CGB/Partners

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			sub-county and ward level to facilitate extension service provision				
			Establish a proper coordination mechanism for administrative and support services in the sector	DoALFIC	2023-2032	5	CGB/Partners
			Establishment of a sustainable Sectoral records management system	DoALFIC	2023-2032	5	CGB/Partners
Crop Development and Management	To enhance crop production, productivity	Crop extension and training services	Provision of a policy framework on agricultural extension services in the county	DoALFIC/Partners	2023-2032	5	CGB/Partners
			Establishment of ATVET institutions in the County to offer specialized pedagogical training in agriculture	DoALFIC/Partners	2023-2032	45	CGB/Partners
			Conduct a county extension baseline survey to provide necessary data for extension planning	DoALFIC/Partners	2023-2032	9	CGB/Partners
			Development of an e-extension platform with real time engagement capabilities among users i.e. a farmer, an extension officer and a supervisor	DoALFIC/Partners	2023-2032	45	CGB/Partners
			Establishment of model demonstration farms in	DoALFIC/Partners	2023-2032	118	CGB/Partners

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		each village unit				
		Conducting field days to disseminate extension information/messages	DoALFIC/Partners	2023-2032	135	CGB/Partners
		Undertaking regular on-farm farmer visits for backstopping	DoALFIC/Partners	2023-2032	90	CGB/Partners
		Development of standard extension messages and sharing through media, booklets, brochures, fliers, etc	DoALFIC/Partners	2023-2032	45	CGB/Partners
		Assigning specific extension officers to specific areas of service (a sub-county, ward or village) for ease of supervision and accountability	DoALFIC/Partners	2023-2032	17	CGB/Partners
		Provision of Motor Vehicles, Motor Cycles, and required tools and equipment where appropriate to facilitate extension service provision	DoALFIC/Partners	2023-2032	250	CGB/Partners
		Strengthen research-extension linkages through quarterly meetings to share new knowledge and technologies	DoALFIC/Partners	2023-2032	30	CGB/Partners
		Establish/strengthen the research liaison office at the county	DoALFIC/Partners	2023-2032	10	CGB/Partners

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		Organize/participate in trade shows/exhibitions/fairs	DoALFIC/Partners	2023-2032	45	CGB/Partners
	Crop Production and Productivity (Food, Industrial and Horticultural Crops)	Subsidize the cost of farm inputs to enhance access (fertilizer, certified seed, chemicals, irrigation kits, mechanization machinery amongst others)	DoALFIC/Partners	2023-2032	2500	CGB/Partners
		Promote and subsidize Soil testing, analysis and treatment services to improve soil quality	Directorate of Agriculture	2023-2032	90	CGB/Partners
		Sensitization and enforcement of National Land Policy to regulate fragmentation of agriculturally productive land	Directorate of Agriculture	2023-2032	45	CGB/Partners
		Promote adoption of appropriate technologies such as high-yielding crop varieties, use of greenhouses, efficient tillage and cultivation methods, mechanization, e.t.c	Directorate of Agriculture	2023-2032	236	CGB/Partners
		Promote adoption of climate smart agriculture to mitigate against the impact of climate change	Directorate of Agriculture	2023-2032	90	CGB/Partners
		Subsidize the cost of chemicals to combat pests	Directorate of Agriculture	2023-2032	135	CGB/Partners

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			and diseases and usage of comparatively resistant seed varieties				
	Agriculture Soil Management		Promote adoption of Conservation Agriculture technologies e.g chisel ploughing, composting, cover crops,etc	Directorate of Agriculture	2023-2032	45	CGB/Partners
			Promote soil testing, analysis and treatment	Directorate of Agriculture	2023-2032	435	CGB/Partners
			Promote adoption of technologies to minimize soil erosion	Directorate of Agriculture	2023-2032	90	CGB/Partners
	Post-harvest management		Promote development and adoption of storage and drying innovations for small scale farmers	Directorate of Agriculture	2023-2032	25	CGB/Partners
			Input support for post-harvest treatment	Directorate of Agriculture	2023-2032	85	CGB/Partners
			Promote adoption of relevant household storage technologies	Directorate of Agriculture	2023-2032	10	CGB/Partners
	Agricultural Value Addition and Agro Processing		Carry out feasibility studies for establishment of value addition and agro-processing units in the county especially for maize, tomato, coffee, tea, banana and potato	Directorate of Agriculture	2023-2032	90	CGB/Partners
			Establish PPP Framework for establishment of value addition and agro-processing units in the	Directorate of Agriculture	2023-2032	950	CGB/Partners

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		county especially for maize, tomato, coffee, tea, banana and potato				
Quality assurance and monitoring of outreach services	Conduct quarterly field backstopping visit	Directorate of Agriculture	2023-2032	20	CGB/Partners	
	Carryout continuous monitoring and evaluation activities and give quarterly reports	Directorate of Agriculture	2023-2032	40	CGB/Partners	
Agribusiness, Marketing and information management	Capacity building of agro-based MSMEs on entrepreneurial and business skills	Directorate of Agriculture	2023-2032	45	CGB/Partners	
	Establishment of a central repository for management of agribusiness and market information in the county	Directorate of Agriculture	2023-2032	12	CGB/Partners	
	Collection of weekly market information on key commodities/crops for dissemination to stakeholders	Directorate of Agriculture	2023-2032	10	CGB/Partners	
	Establishment of modern agri-business market facilities at strategic urban areas e.g Chwele, Kamukuywa, Bungoma town and Webuye amongst others	Directorate of Agriculture	2023-2032	850	CGB/Partners	
Agricultural Financial Services	Mapping of agricultural financial service providers in the county	Directorate of Agriculture	2023-2032	5	CGB/Partners	
	Establishing linkages	Directorate of Agriculture	2023-2032	11	CGB/Partners	

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			through meetings and recommendations between players in the subsector and financial service provider				s
			Promote development and adoption of Crop Insurance products	Directorate of Agriculture	2023-2032	90	CGB/Partners
		Weather information	Timely submission of weather information to farmers in the county	Directorate of Agriculture	2023-2032	10	CGB/Partners
			Assessment and maintenance of weather stations in the county	Directorate of Agriculture	2023-2032	15	CGB/Partners
		International. National and County Celebrations	Organize/Participation in World Food Days, Ushirika Days, National Agricultural Shows and Annual Professional Seminars amongst others	Directorate of Agriculture	2023-2032	40	CGB/Partners
		Nutrition-sensitive agriculture	Promote adoption of kitchen gardens with traditional high value vegetables through capacity building meetings and sensitization fora	Directorate of Agriculture	2023-2032	10	CGB/Partners
		Development Household Irrigation Technologies	Provision of irrigation extension services through field days, demonstrations, on-farm visits, media, brochures, fliers and booklets, etc	Directorate of Irrigation	2023-2032	90	CGB/Partners
			Capacity building of farmer	Directorate of Irrigation	2023-2032	45	CGB/Partners

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			groups on available water efficient irrigation technologies				s
			Promote development and adoption of household Irrigation Technologies e.g drip, rain gun, sprinkler etc	Directorate of Irrigation	2023-2032	90	CGB/Partners
			Provide irrigation equipment support to groups engaging in crop production	Directorate of Irrigation	2023-2032	150	CGB/Partners
		Development and Management of Irrigation Infrastructure	Carry out community sensitization on need and importance of irrigation infrastructure	Directorate of Irrigation	2023-2032	45	CGB/Partners
			Undertake feasibility studies on proposed irrigation projects	Directorate of Irrigation	2023-2032	75	CGB/Partners
			Prepare designs and undertake community sensitization for buy-in on proposed irrigation projects	Directorate of Irrigation	2023-2032	90	CGB/Partners
			Carry out resource mobilization for implementation of proposed irrigation projects	Directorate of Irrigation	2023-2032	5	CGB/Partners
			Carry out continuous capacity building of management committees responsible for maintenance of irrigation	Directorate of Irrigation	2023-2032	10	CGB/Partners

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			projects				
		Agricultural Water Storage and Management	Mapping of all small dams in the county	Directorate of Irrigation	2023-2032	10	CGB/Partners
			Capacity building of management committees on maintenance and sustainable management of the small dams e.g minimizing siltation	Directorate of Irrigation	2023-2032	30	CGB/Partners
			Establishment/Rehabilitation of small dams across the county	Directorate of Irrigation	2023-2032	270	CGB/Partners
			Promote development and adoption of household water harvesting technologies e.g household water pans, roof catchment, etc	Directorate of Irrigation	2023-2032	45	CGB/Partners
Livestock Development and Management	To enhance livestock production, productivity	Livestock and Veterinary extension and training services	Provision of a policy framework on funding of livestock and veterinary extension services in the county	Directorate of Livestock Production/Partners	2023-2032	8	CGB/Partners
			Promote establishment of ATVET institutions in the County to offer specialized pedagogical training in agriculture	CEC/ Directorate of Livestock Production/ Partners	2023-2032	30	CGB/Partners
			Conduct a county livestock and veterinary extension baseline survey to provide necessary data for extension planning	Directorate of Livestock Production/Partners/Stakeholders	2023-2032	12	CGB/Partners

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			Development of an e-extension platform with real time engagement capabilities among users i.e a farmer, an extension officer and a supervisor	Directorate of Livestock Production/Partners	2023-2032	28	CGB/Partners
			Establishment of model demonstration livestock farm units in each Ward/village unit	Directorate of Livestock Production	2023-2032	90	CGB/Partners
			Conducting field days to disseminate extension information/messages	Directorate of Livestock Production/Partners/Stakeholders	2023-2032	135	CGB/Partners
			Undertaking regular on-farm farmer visits for backstopping	Directorate of Livestock Production	2023-2032	45	CGB/Partners
			Development of standard extension messages and sharing through media, booklets, brochures, fliers, etc	Directorate of Livestock Production/Partners	2023-2032	75	CGB/Partners
			Assigning specific extension officers to specific areas of service (a sub-county, ward or village) for ease of supervision and accountability	Directorate of Livestock Production	2023-2032	15	CGB/Partners
			Provision of Motor Vehicles, Motor Cycles, and required tools and equipment where appropriate to facilitate	Directorate of Livestock Production/Partners/Stakeholders	2023-2032	175	CGB/Partners

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		extension service provision				
		Strengthen research-extension linkages through quarterly meetings to share new knowledge and technologies	Directorate of Livestock Production/Partners/Stakeholders	2023-2032	45	CGB/Partners
		Establish/strengthen the research liaison office at the county	Directorate of Livestock Production/Partners	2023-2032	6	CGB/Partners
		Organize/participate in trade shows/exhibitions/fairs	Directorate of Livestock Production/Partners/Stakeholders	2023-2032	30	CGB/Partners
	Pasture development	Conduct on-farm demonstrations on pasture and fodder development at ward level	Directorate of Livestock Production/Partners	2023-2032	30	CGB/Partners
		Provision of quality farm input such as certified pasture seeds	Directorate of Livestock Production/Partners	2023-2032	150	CGB/Partners
		Regular inspection of livestock feeds and feed milling plants	Directorate of Livestock Production/Partners	2023-2032	25	CGB/Partners
	Livestock Production and Productivity (Dairy, Beef, Poultry, Honey, Goat, Sheep, Pig)	Development and adoption of the most appropriate livestock breeds for the county. This is against having many different breeds across the county	Directorate of Livestock Production/Partners	2023-2032	150	CGB/Partners
		Provision of farm inputs including improved breeds, certified fertilizer, certified pasture seeds, chemicals, irrigation equipment,	Directorate of Livestock Production/Partners	2023-2032	950	CGB/Partners

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			mechanization machinery, amongst others through programs such as Farm Input Support, Agricultural Financing, etc				
			Promote adoption of climate smart livestock farming technologies to mitigate against the impact of climate change	Directorate of Livestock Production/Partners	2023-2032	80	CGB/Partners
			Promote adoption of appropriate technologies such as breeding and feeding	Directorate of Livestock Production/Partners	2023-2032	30	CGB/Partners
			Fast track operationalization of existing feed mills and milk coolers	Directorate of Livestock Production/Partners/Stakeholders	2023-2032	65	CGB/Partners
			Enhance implementation of demonstration innovations such as apiary, forage harvesting and handling technologies	Directorate of Livestock Production/Partners	2023-2032	50	CGB/Partners
		Livestock Value Addition and Agro Processing	Carry out feasibility studies for establishment of value addition and agro-processing units in the county especially for milk, poultry and honey	Directorate of Livestock Production/Partners	2023-2032	22	CGB/Partners
			Establish PPP Framework for establishment of value addition and agro-processing units	CECM/Directorate of Livestock Production/Partners	2023-2027	450	CGB/Partners

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	Quality assurance and monitoring of outreach services	Conduct quarterly field backstopping visits	Directorate of Livestock Production	2023-2032	20	CGB/Partners
		Carryout continuous monitoring and evaluation activities and give quarterly reports	Directorate of Livestock Production	2023-2032	40	CGB/Partners
	Agribusiness, Marketing and information management	Capacity building of agro-based MSMEs on entrepreneurial and business ski	Directorate of Livestock Production/Partners	2023-2032	50	CGB/Partners
		Establishment of a central repository for management of agribusiness and market information in the county	Directorate of Livestock Production/Partners/Stakeholders	2023-2032	5	CGB/Partners
		Collection of weekly market information on livestock for dissemination to stakeholders	Directorate of Livestock Production/Partners/Stakeholders	2023-2032	10	CGB/Partners
		Establishment of modern agri-business market facilities at strategic urban areas e.g Chwele, Kamukuywa, Bungoma town and Webuye amongst others	Directorate of Livestock Production/Partners/Stakeholders	2023-2032	350	CGB/Partners
		Establishment of livestock sale yards across the county	Directorate of Livestock Production/Partners	2023-2032	80	CGB/Partners
	Agricultural Financial Services	Mapping livestock financial service providers in the county	Directorate of Livestock Production	2023-2032	5	CGB/Partners
		Establishing linkages	Directorate of Livestock	2023-2032	10	CGB/Partners

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			through meetings and recommendations between players in the subsector and financial service providers	Production			s
			Promote development and adoption of livestock Insurance products	Directorate of Livestock Production/Partners	2023-2032	10	CGB/Partners
		Weather information	Timely submission of weather information to farmers in the county	Directorate of Livestock Production/Meteorological Department	2023-2032	5	CGB/Partners
		International. National and County Celebrations	Organize/Participation in World Food Days, Ushirika Days, National Agricultural Shows and Annual Professional Seminars amongst others	Directorate of Livestock Production	2023-2032	20	CGB/Partners
		Animal Welfare	Sensitization of stakeholders on animal welfare in the county	Directorate of Veterinary Services	2023-2032	15	CGB/Partners
			Establishment of a policy and legal framework on animal welfare in the county	Directorate of Veterinary Services	2023-2024	5	CGB/Partners
		Disease and Vector control	Conduct regular disease surveillance activities	Directorate of Veterinary Services	2023-2032	10	CGB/Partners
			Carry out routine vaccination drives across the county	Directorate of Veterinary Services	2023-2032	150	CGB/Partners
			Establishment/rehabilitation of cattle dips, crush pens and trapping nets across the county	Directorate of Veterinary Services	2023-2032	250	CGB/Partners

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		Animal Breeding	Promote adoption of Artificial Insemination services through provision of Subsidized services	Directorate of Veterinary Services	2023-2032	75	CGB/Partners		
			Establishment of animal breeding centers in the county especially at Mabanga ATC and Sang’alo Institute	Directorate of Veterinary Services	2023-2032	250	CGB/Partners		
		Food safety and quality control/Animal health	Establishment of a veterinary diagnostic lab in the county	Directorate of Veterinary Services	2023-2032	45	CGB/Partners		
			Licensing and Regular inspection of slaughter facilities in the county	Directorate of Veterinary Services	2023-2032	10	CGB/Partners		
			Promote establishment/operationalization of a poultry slaughter facility in the county	Directorate of Veterinary Services	2023-2032	75	CGB/Partners		
			Promote establishment of pig slaughter facilities in the county	Directorate of Veterinary Services	2023-2032	25	CGB/Partners		
		Leather development	Establishment of a tannery in the county	Directorate of Veterinary Services	2023-2025	120	CGB/Partners		
			Licensing and inspection of Hides and Skin Premises and handlers	Directorate of Veterinary Services	2023-2032	50	CGB/Partners		
		Fisheries Development and Management	To enhance fisheries production, productivity	Fisheries extension and training services	Provision of a policy framework on funding of aquaculture extension services in the county	Directorate of Fisheries	2023-2032	4	CGB/Partners
					Promote establishment of ATVET institutions in the	Directorate of Fisheries	2023-2032	10	CGB/Partners

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			County to offer specialized pedagogical training in aquaculture				
			Conduct a county aquaculture extension baseline survey to provide necessary data for extension planning	Directorate of Fisheries	2023-2032	5	CGB/Partners
			Development of an e-extension platform with real time engagement capabilities among users i.e a farmer, an extension officer and a supervisor.	Directorate of Fisheries	2023-2032	8	CGB/Partners
			Establishment of model demonstration aquaculture farms in each Ward/village unit	Directorate of Fisheries	2023-2032	90	CGB/Partners
			Conducting field days to disseminate extension information/messages	Directorate of Fisheries	2023-2032	40	CGB/Partners
			Undertaking regular on-farm farmer visits for backstopping	Directorate of Fisheries	2023-2032	30	CGB/Partners
			Development of standard extension messages and sharing through media, booklets, brochures, fliers, etc	Directorate of Fisheries	2023-2032	25	CGB/Partners
			Assigning specific extension officers to specific areas of service (a sub-county, ward or	Directorate of Fisheries	2023-2032	5	CGB/Partners

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			village) for ease of supervision and accountability				
			Provision of Motor Vehicles, Motor Cycles, and required tools and equipment where appropriate to facilitate extension service provision	Directorate of Fisheries	2023-2032	25	CGB/Partners
			Strengthen research-extension linkages through quarterly meetings to share new knowledge and technologies	Directorate of Fisheries	2023-2032	10	CGB/Partners
			Establish/strengthen the research liaison office at the county	Directorate of Fisheries	2023-2032	4	CGB/Partners
			Organize/participate in trade shows/exhibitions/fairs	Directorate of Fisheries	2023-2032	8	CGB/Partners
		Fisheries Production and Productivity	Enhance access to farm inputs including fingerlings, fish feeds and fishing gear through input support programs	Directorate of Fisheries	2023-2032	400	CGB/Partners
			Enhance adoption of appropriate technologies such as in production monosex fingerlings and water retention in ponds	Directorate of Fisheries	2023-2032	20	CGB/Partners
			Enhance adoption of climate smart fish farming technologies to mitigate	Directorate of Fisheries	2023-2032	50	CGB/Partners

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		against the impact of climate change by capacity building stakeholders				
		Fast truck operationalization of existing feed mills	Directorate of Fisheries	2023-2032	45	CGB/Partners
	Agricultural Value Addition and Agro Processing	Carry out feasibility studies for establishment of a fisheries value addition and agro-processing units in the county	Directorate of Fisheries	2023-2032	20	CGB/Partners
		Establish PPP Framework for establishment of value addition and agro-processing units	Directorate of Fisheries	2023-2032	4	CGB/Partners
	Quality assurance and monitoring of outreach services	Conduct quarterly field backstopping visits	Directorate of Fisheries	2023-2032	20	CGB/Partners
		Carryout continuous monitoring and evaluation activities and give quarterly reports	Directorate of Fisheries	2023-2032	40	CGB/Partners
	Agribusiness, Marketing and information management	Capacity building of fisheries MSMEs on entrepreneurial and business skills	Directorate of Fisheries	2023-2032	50	CGB/Partners
		Establishment of a central repository for management of agribusiness and market information in the county	Directorate of Fisheries	2023	1	CGB/Partners
		Collection of weekly market information on fish products for dissemination to stakeholders	Directorate of Fisheries	2023-2032	10	CGB/Partners

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			Establishment of modern agri-business market facilities at strategic urban areas e.g Chwele, Kamukuywa, Bungoma town and Webuye amongst others	Directorate of Fisheries	2023-2032	50	CGB/Partners
		Agricultural Financial Services	Mapping of agricultural financial service providers in the county	Directorate of Fisheries	2023-2032	50	CGB/Partners
			Establishment of linkages through meetings and recommendations between players in the subsector and financial service providers	Directorate of Fisheries	2023-2032	20	CGB/Partners
			Promote development and adoption of fish farming insurance products and sensitization of farmers on the same	Directorate of Fisheries	2023-2032	10	CGB/Partners
			International, National and County Celebrations	Organize/Participation in World Food Days, Ushirika Days, National Agricultural Shows and Annual Professional Seminars amongst others	Directorate of Fisheries	2023-2032	50
		Food safety and quality control	Licensing and Regular inspection of fish handling facilities and traders	Directorate of Fisheries	2023-2032	50	CGB/Partners
Agricultural Institutions Development	To enhance effectiveness and	Development of Mabanga Agricultural Training Centre	Carry out/host farmer capacity building activities on good agricultural	Agricultural Training Centre (ATC)	2023-2032	200	CGB/Partners

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and Management	efficiency in institutional service delivery	(ATC)	practices				
			Upgrading of the ATC to an ATVET institution	Agricultural Training Centre (ATC)	2023-2032	100	CGB/Partners
			Establishment of model livestock units and crops plots at the ATC for farmer learning purposes	Agricultural Training Centre (ATC)	2023-2032	10	CGB/Partners
			Renovation of farm and school structures at the ATC for effective service delivery	Agricultural Training Centre (ATC)	2023-2024	80	CGB/Partners
			Adopt income generating enterprises to mobilize resources for management of the ATC and for contribution to the county revenue	Agricultural Training Centre (ATC)	2023-2032	50	CGB/Partners
	Development of Mabanga Agricultural Mechanization Centre (AMC)	Carry out farmer sensitization and capacity building activities on mechanization technologies	Agricultural Mechanization Centre (AMC)	2023-2032	10	CGB/Partners	
		Establishment of an office block, a workshop, a soil sample store and machinery shed for AMC	Agricultural Mechanization Centre (AMC)	2023-2024	12	CGB/Partners	
		Acquisition of additional machinery (tractors and implements, dryers, etc) to enhance adoption	Agricultural Mechanization Centre (AMC)	2023-2032	350	CGB/Partners	
		Capacity building of stakeholders	Agricultural Mechanization Centre (AMC)	2023-2032	10	CGB/Partners	

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		agricultural mechanization technologies				
		Adopt income generating enterprises to mobilize resources for management of the AMC and for contribution to the county revenue	Agricultural Mechanization Centre (AMC)	2023-2032	5	CGB/Partners
	Development of Chwele Fish Farm (CFF)	Carry out/host farmer capacity building activities on good aquaculture practices	Chwele Fish Farm (CFF)	2023-2032	25	CGB/Partners
		Production of fingerlings and issuance to farmers at subsidized costs	Chwele Fish Farm (CFF)	2023-2032	45	CGB/Partners
		Acquisition of fish feeds for fingerlings and breeding stock	Chwele Fish Farm (CFF)	2023-2032	20	CGB/Partners
		Routine desiltation of the fish ponds and flood control at CFF	Chwele Fish Farm (CFF)	2023-2032	25	CGB/Partners
		Restocking of ponds with breeding stock and fitting pond liners for production of fingerlings	Chwele Fish Farm (CFF)	2023-2032	10	CGB/Partners
		Establishment of a recirculating Aquaculture system for production of monosex fingerlings	Chwele Fish Farm (CFF)	2023-2032	8	CGB/Partners
		Drilling and equipping of a borehole at the facility	Chwele Fish Farm (CFF)	2023-2032	2.5	CGB/Partners
		Establishment of a	Chwele Fish Farm (CFF)	2023-2032	18	CGB/Partners

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			laboratory, feed mill, catering facility, hostel, sanitation block, and a training hall for effective service delivery				s
			Adopt income generating enterprises to mobilize resources for management of the AMC and for contribution to the county revenue	Chwele Fish Farm (CFF)	2023-2032	5	CGB/Partners
Cooperatives Development and Management	To enhance production, markets, value addition and incomes	Cooperative registration services	Mobilization, sensitization, capacity building and registration of cooperative societies	Directorate of Cooperatives	2023-2032	45	CGB/Partners
		Cooperative governance, advisory and training services	Capacity building of cooperative societies’ leaders and members on good cooperative management practices	Directorate of Cooperatives	2023-2032	90	CGB/Partners
			Facilitating elections and general meetings for cooperative societies	Directorate of Cooperatives	2023-2032	9	CGB/Partners
			Provision of routine advisory/extension services to cooperative societies in the county	Directorate of Cooperatives	2023-2032	18	CGB/Partners
		International. National and County Celebrations	Organize/Participation in World Food Days, Ushirika Days, National Agricultural Shows and Annual Professional Seminars amongst others	Directorate of Cooperatives	2023-2032	5	CGB/Partners

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	Cooperative agribusiness and marketing services	Promote sustainable market linkages for agricultural cooperative societies through capacity building of players and establishment of MoUs, favorable contracts, and sourcing of new markets	Directorate of Cooperatives	2023-2032	10	CGB/Partners
		Establishment of a central repository for management of agribusiness and market information in the county	Directorate of Cooperatives	2023	5	CGB/Partners
	Cooperative infrastructural/financial support services	Promote establishment of relevant infrastructure for production, storage, transportation, value addition & processing and marketing to support growth of cooperative societies. Such infrastructure include coffee pulping and milling, tea processing, milk cooling and processing, poultry collection and processing, potato cold storage and processing amongst others	Directorate of Cooperatives	2023-2032	250	CGB/Partners
		Promoting linkages between cooperative societies and financial institutions	Directorate of Cooperatives	2023-2032	20	CGB/Partners
		Establishment of a	Directorate of Cooperatives	2023-2032	150	CGB/Partners

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			cooperative enterprise development fund to offer credit to vibrant societies				s
		Cooperative audit services	Provision of audit services to cooperative societies in the county	Directorate of Cooperatives	2023-2032	20	CGB/Partners