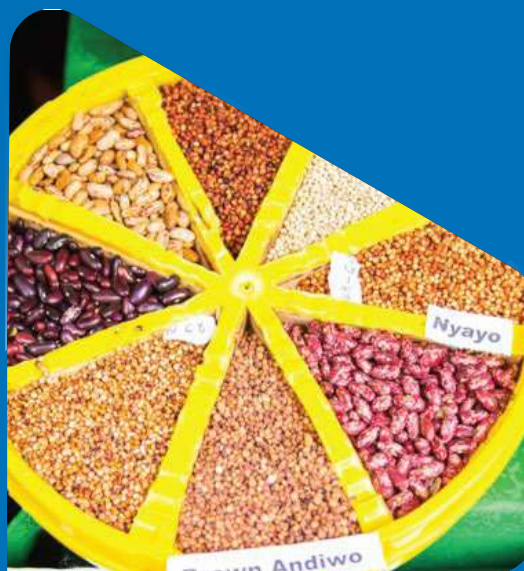




GOVERNMENT OF MAKUENI COUNTY



MAKUENI COUNTY AGROECOLOGICAL POLICY

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FOREWORD



The Government of Makueni County is steadfastly committed to building a resilient economy for sustainable development, as articulated in the County Integrated Development Plan (CIDP) 2023–2027. Central to this vision is the aspiration to achieve food and nutrition security—ensuring that every household enjoys a healthy, prosperous life supported by inclusive and sustainable livelihoods.

However, this vision is challenged by the realities of a rising population, increased vulnerability to climate change, and recurring economic shocks, all of which continue to strain our food systems. Many families still face hunger as food provisioning systems are disrupted and weakened. Our current food system remains unsustainable, with challenges such as declining soil health, unsustainable land use practices, biodiversity loss, degradation of ecosystems, and overdependence on rainfed agriculture. These are compounded by the high cost of farm inputs, low uptake of technology, post-harvest losses, and changing consumption patterns that have fueled the rise of non-communicable diseases like diabetes, cancer, and cardiovascular illnesses. Weak linkages in food supply chains and high transaction costs further hinder equitable access to safe and nutritious food.

Transforming our food systems to become sustainable, resilient, and equitable is therefore urgent. This transformation requires a robust policy framework to strengthen resilience, adaptive capacity, and inter-sectoral action. Agroecology presents a holistic pathway toward this transformation. It promotes ecological practices that regenerate natural resources, protect biodiversity, strengthen ecosystems, and support livelihoods while delivering safe and nutritious diets.

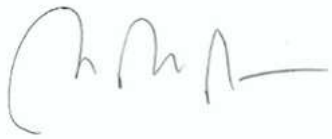
The Makueni County Agroecology Policy provides a framework for scaling up agroecological practices to meet the County's food security, nutrition, and sustainability goals. The Policy acknowledges that no single solution applies to all contexts. Instead, it embraces diverse pathways that integrate ecological principles, technologies, and local innovations to ensure sustainable agri-food systems. It also provides a platform for collaboration among County departments, non-state actors, the private sector, and other stakeholders.

The Policy is anchored on seven key pillars:

1. Transitioning to agri-food systems that embrace ecological practices for sustainable production and healthy ecosystems.
2. Restoring agrobiodiversity and enhancing ecosystem functions to build resilience and sustainability.
3. Promoting agroecological enterprises to improve livelihoods and support inclusive socio-economic development.
4. Ensuring access to healthy, diverse, safe, nutritious, and culturally appropriate diets for all.
5. Building the capacity of extension service providers and stakeholders to drive the agroecology transition.
6. Creating an enabling environment to mainstream and scale up agroecological practices.
7. Promoting inclusivity and equitable access to resources for improved governance of the agri-food system.

I extend my sincere appreciation to the consultants—Dr. Josiah Ateka (JKUAT), Prof. Daniel Sila (JKUAT), Wanjiru Kamau (ISFAA), Dr. Forah Obebo (Kenyatta University), Dr. Martin Oulu (ISFAA), and Mercyline Njeri (JKUAT)—for their technical input, research, and synthesis of issues that were central to the development of this Policy. I also wish to recognize the immediate former County Executive Committee Member, Hon. Joyce Mutua, for initiating this important process.

The implementation of this Policy will accelerate the realization of our County's aspiration for a resilient economy and a sustainable future. As the Governor, I reaffirm my Government's commitment to creating an enabling environment for the successful transformation of food systems in Makueni County



H.E Mutula Kilonzo Junior, CBS
Governor,
Makueni County

PREFACE



The County acknowledges that current food systems are unable to adequately provide healthy, safe, and sustainable diets for all. These systems face multiple challenges, including the triple burden of malnutrition, food insecurity, and the impacts of climate change, which manifest in recurrent droughts and floods. Furthermore, the continued expansion of agriculture into natural habitats poses a significant threat to biodiversity.

Agroecology has emerged globally and nationally as a key pathway for transforming food systems. The Makueni Agroecology Policy provides an opportunity to address food and nutrition security while also promoting biodiversity conservation, climate adaptation, water stewardship, ecosystem resilience, sustainable livelihoods, and the protection of human rights. It serves as a framework to guide the County's efforts in scaling up agroecology.

To ensure effective implementation, the Policy establishes mechanisms for collaboration between County Government departments and non-state actors—including the private sector, value chain actors, farmer groups, associations, and civil society organizations—towards an agroecological transformation of food systems.

This Policy is the outcome of a co-creation process involving diverse stakeholders. A Technical Working Group (TWG), established by the County Government, brought together representatives from County Departments, the private sector, development partners, farmer groups, and researchers. The TWG conducted a baseline assessment and identified key policy issues, which were co-created and validated through technical reviews. The draft Policy was subsequently refined by the County Executive Committee, the County Assembly, and enriched by extensive public consultations through workshops, focus group discussions, and interviews. The final Policy was ratified during a County Validation Workshop, where valuable insights and recommendations were incorporated.

We extend our sincere appreciation to all stakeholders who contributed to this process. We now call upon you to join hands in the successful implementation of this Policy for the prosperity and resilience of our County.



Elizabeth N. Muli

County Executive Committee Member

Department of Agriculture, Livestock, Fisheries and Cooperative Development

ACKNOWLEDGEMENT



The development of the Makueni Agroecology Policy, which commenced in 2024, has been made possible through the generous support and contributions of many institutions and individuals. We particularly recognize the Biodiversity and Biosafety Association of Kenya (BIBA-Kenya), Biovision Africa Trust (BvAT),



Cereal Growers Association (CGA), Voluntary Services Overseas (VSO), Makueni Development Trust (MADET), Participatory Ecological Land Use Management (PELUM-Kenya), ActionAid Kenya, Solidaridad, and the Intersectoral forum on agroecology and agrobiodiversity (ISFAA), whose collective roles in this process are deeply appreciated.

At the county level, we express our sincere gratitude to the Executive leadership—through the Governor, the Deputy Governor, and all County Executive Committee Members (CECMs)—for recognizing the value of synergy achieved through a multi-stakeholder approach to sustainable social, economic, and political development. We are especially thankful to the Department of Agriculture, Livestock, Fisheries and Cooperative Development (DALFCD) for serving as the Secretariat of the Technical Working Group (TWG), and for providing policy direction while strengthening partnerships, collaborations, and networks. We also acknowledge the contributions of agriculture-related MDAs, including the Departments of Health; Environment, Water, Land, Natural Resources, and Climate Change.

To the people and friends of Makueni who actively participated in the public forums, we say ahsante sana. Your voices, ideas, and commitment enriched this process. It is our hope that this Agroecology Policy will catalyze transformative actions that strengthen resilience and enhance adaptive capacity across the agri-food sector. Ultimately, this will contribute to the realization of the County's aspiration, sloganized as *"Wauni wa Kwika Nesa na Ulungalu"* interpreted as "Passion to serve with integrity".

Dr. Victoria Kyallo
Chief Officer – Agriculture
Makueni County

Mr. Japheth Mutuku Kiminza
Chief Officer – Livestock, Fisheries
and Cooperative Development
Makueni County

ACRONYMS AND ABBREVIATIONS

ASALs	Arid and Semi – Arid Lands
CIDP	County Integrated Development Plan
CASSCOM	County Agriculture Sector Steering Committee
CECMs	County Executive Committee Members
CFA	Community Forest Associations
GMC	Government of Makueni County
CGs	County Governments
DALFCD	Department of Agriculture, Livestock, Fisheries and Cooperative Development
GDP	Gross Domestic Product
GHGs	Greenhouse Gas Emissions
FAO	Food and Agriculture Organization
FLW	Food Loss and Waste
IPCC	Intergovernmental Panel on Climate Change
ISFAA	Intersectoral Forum on Agrobiodiversity and Agroecology
JASSCOM	Joint Agricultural Sector Steering Committee
KNBS	Kenya National Bureau of Statistics
NAS – FST	National Agroecology Strategy for Food System Transformation
NCDs	Non-Communicable Diseases
NDC	Nationally Determined Contribution
NSAs	Non-State Actors
PES	Payment for Ecosystem Services
PWDs	People with Disabilities
SDGs	Sustainable Development Goals
SMEs	Small and Medium-sized Enterprises
TWG	Technical Working Group
UNFCCC	United Nations Framework Convention on Climate Change
WRUAs	Water Resources Users Associations

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CHAPTER ONE: INTRODUCTION

1.1 Background

Globally, existing food systems are not able to sustainably provide sufficient and nutritious food to all. In the face of environmental degradation, climate change and the burden of malnutrition, there is increasing recognition that food systems are not meeting the needs of people, and their environmental costs are contributing to global climate change and biodiversity loss. The food security challenges are worsened by low productivity – associated with poor soil health, poor agricultural practices, deteriorating ecological status of the environment and climate change, among others.

Food systems are made up of all the interconnected activities that feed people, from production and processing, to packaging and marketing, and their links to the environment. They include diets, cultural practices, prices and other factors that shape the demand for and consumption of food. They include any activity that produces, aggregates, processes, distributes, consumes or dispose food.

To combat these challenges, there is an urgent need to transform food systems to make them more sustainable, resilient, equitable and healthy. The recognition of food system transformation as a lever of change in achieving the Sustainable Development Goals (SDGs) has recently gained increased attention. In Kenya, the Government has developed the country's Food System

Transformation Pathway Plan which aims to make food systems healthy and nutritious; inclusive and enabling sustainable livelihoods for all stakeholders; environmentally sustainable; and resilient (UNFSS, 2021).

The National Government has also developed the National Agroecology Strategy for Food System Transformation 2024-2033 (NAS-FST). Agriculture being a devolved function, the NAS-FST identifies the need for individual counties to formulate agroecology frameworks, laying out how to translate global and national goals into local actions. The recommendation acknowledges that while the national and local food systems are interconnected, actions to achieve transformation will vary across regions. This is due to differences in nutritional needs, agricultural practices, ecologies, food culture, structure of market and local environments.

Makueni County is one of the 47 counties in Kenya located in the South eastern part of the Country. The County is situated within an arid and semi-arid land (ASAL) area making it highly vulnerable to food insecurity and other adverse impacts of climate change. The food production systems in the County are characterized by declining productivity due to seasonal and erratic rainfall, water scarcity, declining soil health, and unsustainable farming practices, among others. Makueni County has a poverty rate of 44.7 percent, which is higher than the national average of 39.8 percent (KNBS 2022).

The high poverty level is attributed to several factors, including low agricultural productivity (mainly due to water scarcity, and poor soils) and high unemployment rates.

To improve livelihoods and transform the food systems in Makueni, a robust policy framework is required. The County Government developed the Makueni Agroecology Policy to accelerate and scale-up actions to strengthen resilience and enhance adaptive capacity of the agri-food related sectors. The policy will govern, influence, and harmonize the much-interlinked roles that are played by the various actors in realizing the County Vision “A prosperous value based county with high quality of life” guided by clarion call of “Wauni wa Kwika nesa na Ulungalu” interpreted as “Passion to Serve with integrity”. The policy has adopted agroecology as a pathway for achieving the much-needed transformation.

Agroecology is one of the internationally recognized approaches for addressing many of the challenges facing food systems in a manner that is eco- friendly, resilient, inclusive, and just. Agroecological approaches favor the use of natural processes, improving the use of inputs available at the farm level, fostering circular

systems that minimize negative environmental and social externalities, while actively addressing structural inequalities and promoting inclusive development. The approach puts emphasis on participatory processes, combining local and scientific knowledge and focusses on the interactions between plants, animals, humans and the environment.

Agroecology gives power back to the people who grow food. It builds resilience and independence, turning farmers and communities into leaders of change. Rather than merely adjusting the practices of unsustainable agricultural systems, agroecology aims to transform food and agriculture by addressing root causes through integrated, holistic, and long-term solutions. This includes an explicit focus on the social and economic dimensions of food systems. Agroecology also places a strong focus on the rights of women, youth and indigenous peoples (HLPE, 2019).

Agroecology is inspired by 13 agroecological principles which are organized around the three interrelated organizational pillars of a sustainable food systems (Figure 1).

Improve resource efficiency	Strengthen resilience	Secure social equity/ responsibility
• Recycling • Input reduction	• Soil health • Animal health • Biodiversity • Synergy • Economic diversification	• Co-creation of knowledge • Social values and diets • Fairness • Connectivity • Land and resource governance • Participation

1.2 Rationale for Agroecology policy for Makueni County

Makueni County faces the triple burden of malnutrition and food insecurity reflected in coexistence of undernutrition (stunting, wasting and underweight), micronutrient deficiencies, and over-nutrition (overweight and obesity). In 2022, the stunting level for under five children stood at 19.8 percent (Figure 2), which is above the national average of 17.6 percent (KNBS and ICF, 2023). In addition, only 26.9 percent of women aged 15–49 met the minimum dietary diversity (MDD) level compared to the national average of 48.5 percent. At the same time, there have been increased cases of non-communicable and other chronic diseases, some of which are associated with unhealthy diets, including cardiovascular diseases, cancer, and diabetes.

Unfortunately, the traditional crops which are drought tolerant and nutrient dense have largely been abandoned. In addition, the over-use/abuse of agrochemical inputs has

also presented food safety challenges.

The food security challenges in the County are worsened by low productivity which is associated with poor soil health, poor agricultural practices, deteriorating status of the environment, and climate change. In Makueni, the challenge is more severe, being an ASAL region, characterized by water scarcity, low and erratic rainfall, high temperatures, and fragile ecosystems.

The County, through the Participatory Climate Risk Assessment (PCRA), mapped and ranked various risks and hazards including drought, livestock and crop pests and diseases, environmental degradation, human diseases, pollution, and human-wild-life conflict. The assessment also identified vulnerable groups who are most at risk, including the elderly, women, children, persons with disabilities, youth, single parents, orphans, widows and widowers, and child-headed families.

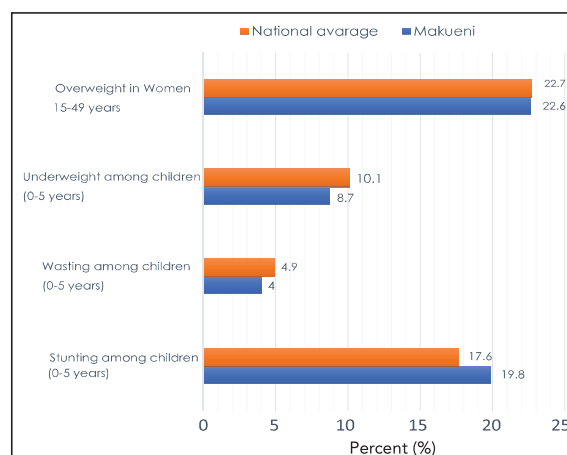


Figure 2: Nutritional indicators for Makueni County (KNBS and ICF, 2023).

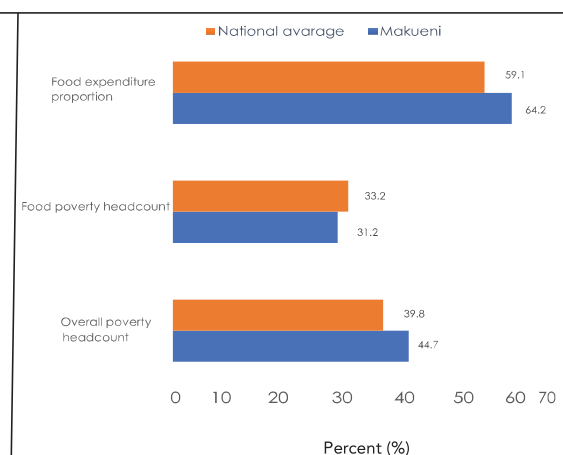


Figure 3: Distribution of poverty rates in Makueni County (KNBS, 2022)

The County has an overall poverty rate of 44.2 percent, affecting 469,000 persons (Figure 3), which is higher than the national average of 39.8 percent (KNBS 2022). Food poverty is also prevalent in the County, with 31.3 percent of households affected, largely due to low agricultural productivity caused by unfavorable climatic conditions. This has led to an over-reliance on food aid, with many households experiencing food insecurity and some often skipping meals, contributing to high rates of malnutrition.

In view of this, tackling malnutrition and food insecurity through the promotion and consumption of diverse, nutritious foods is essential for the well-being of the population. Doing so will not only address immediate challenges but also set Makueni County on the right path towards sustainable development, ensuring a prosperous and resilient future for its communities. Delaying action risks worsening the current conditions, making immediate intervention essential for the County's future growth and stability.

Agroecology has gained significant recognition as one of the pathways for food systems transformation. The UN Food Systems Summit (2021), the United Nations Framework Convention on Climate Change (UNFCCC) Conference of Parties (COP 28 & 29), and the Kunming-Montreal Global Biodiversity Framework (GBF) are among the global frameworks which recognize a groecology as an approach to facilitate ity".

a transition towards more productive, sustainable and inclusive food systems. This is aligned to the UN Sustainable Development Goals: specifically, SDG 3 (Good health and wellbeing), SDG 10 (reduced inequalities), SDG 12 (Responsible consumption and production), SDG 13 (climate change), SDG 15 (life on land) and SDG 17 (Partnership for the Goals).

The transformation of food systems towards sustainability requires a robust policy framework to accelerate and scale-up actions to strengthen resilience and enhance adaptive capacity in the agri-food related sectors. In Kenya, the existing policy framework including Kenya Vision 2030 and the Agricultural Policy 2021 acknowledge the potential of agroecology in supporting the food system transformation.

The Constitution of Kenya (2010) recognizes sustainable development as an important value and principle of governance and grants the right to adequate food and a clean and healthy environment to all citizens (Article 42 and 43). This policy is also aligned to the Agricultural Sector Transformation and Growth Strategy (2019-2029), a ten-year nationwide sectoral document that aims at developing and transforming the agricultural sector in order to achieve what is established by Article 43 of the Constitution which states that "Every person has the right to be free from hunger, and to have adequate food of acceptable qual

To reach the overall goal, it establishes three areas of focus for the first five years as follows: (i) increase small-scale farmer, pastoralist and fisher-folk incomes; (ii) increase agricultural output and value addition; and (iii) increase household food resilience. The formulation of this policy is in line with the NAS-FST (2024–2033).

Makueni County has a number of frameworks supporting the agri-food sector including: Makueni County Agriculture and Livestock Policy 2021, Makueni County Co-operative Act, 2017 and Makueni County Environment and Climate Change Policy 2021. However, the County does not have a specific policy or strategy on agroecology. In addition, agroecological initiatives are fragmented and not properly anchored in the policies stated above. There is need to strengthen mechanisms for consultation and cooperation within County government departments, non-state agencies, private sector, value chain actors, farmers associations and groups to ensure an agroecological transformation of food systems.

The Makueni Agroecology Policy presents an opportunity to holistically address food and nutrition security, while simultaneously providing benefits of climate adaptation, biodiversity and water conservation, ecosystem resilience, sustainable livelihoods and human rights.

The County is vulnerable to food insecurity, malnutrition, and climate change.

The County is predominantly arid and semi-arid, characterized by frequent droughts, declining agricultural productivity and degradation of key ecosystems. These challenges have made it increasingly difficult to sustain food production and improve the well-being of local communities. The policy is framed in the context of the food system transformation pathway plan and constitutional aspiration of the right to food and putting the country on a trajectory towards sustainable development.

The implementation of the Agroecology Policy will contribute to agri-food systems transformation across many domains including food and nutrition, health, environment and climate change adaptation and mitigation, economic and social cultural outcomes (Figure 4).

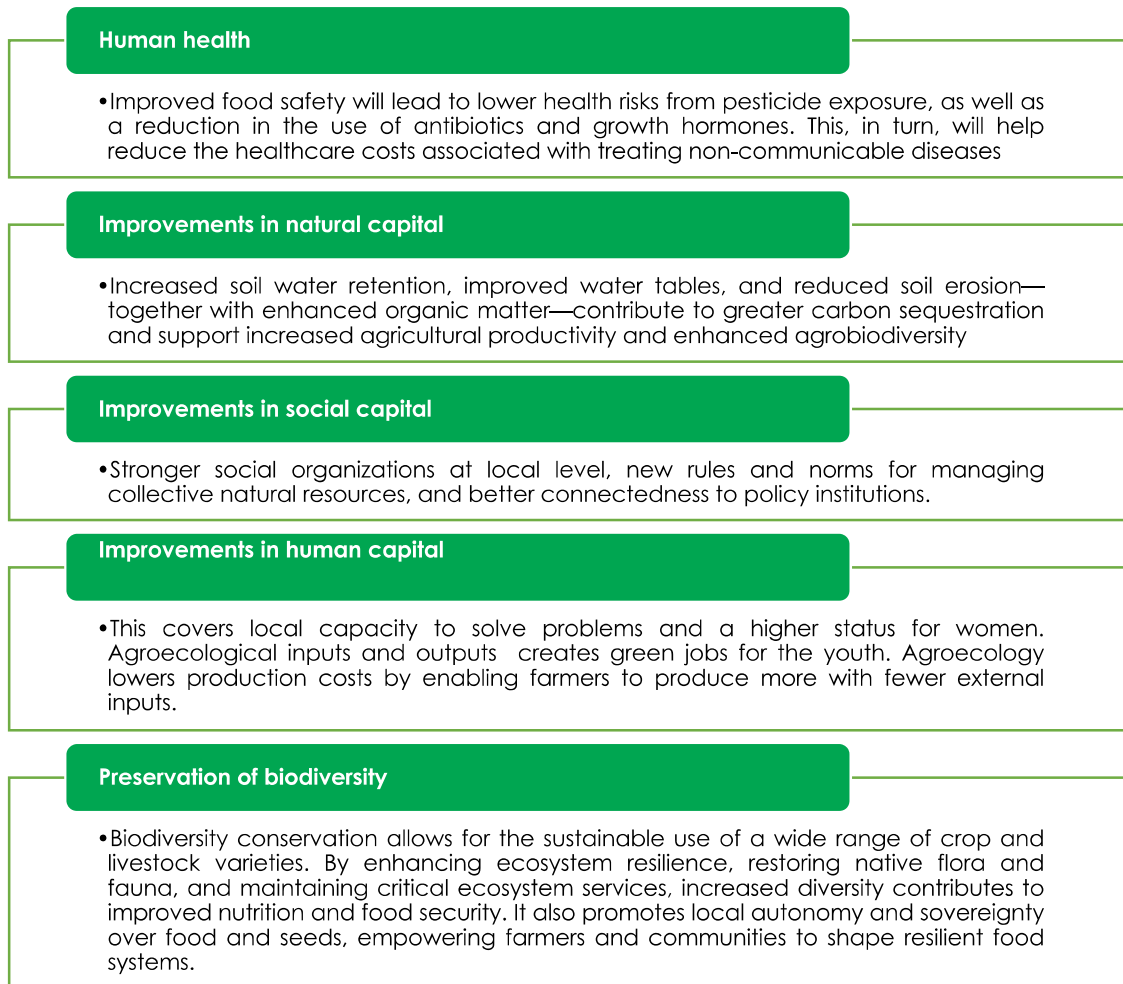


Figure 4: Possible outcomes for agri-food systems transformation

1.3 Policy goals and objectives

This Policy aims to guide the agroecological transition in Makueni County, facilitating the sustainable transformation of the food system to ensure food security, improved nutrition, climate-resilient livelihoods, and social inclusion for all.

It aligns with the Kenya's Government priority of food and nutrition security as a key pillar in the national development agenda and constitutional aspirations for sustainable development as well as the aspiration to achieve a resilient economy in Makueni County.

The Policy objectives are as follows;

- 1 To transition to an agri-food system that embraces ecological practices for sustainable production and healthy ecosystems.
- 2 To restore agrobiodiversity and enhance ecosystem function for increased resilience and sustainability.
- 3 To promote agroecological enterprise development for improved livelihoods and inclusive socio-economic development in Makueni County.
- 4 To promote healthy, diverse, safe, nutritious and culturally appropriate diets for all.
- 5 To enhance the capacity and knowledge of extension service providers and relevant stakeholders for sustainable agroecological transition.
- 6 To create an enabling environment for mainstreaming and scaling up of agro-ecological practices in Makueni County.
- 7 To promote inclusivity and equitable access to resources for improved governance of the agri-food system.

1.4 Scope of the Makueni Agroecology Policy

The Policy outlines clear goals and objectives and strategies for an agro-ecological transformation of the food system in Makueni County. It fosters inter-sectoral collaboration across County departments, non-state agencies, the private sector, and other public bodies to promote the transition to an eco-friendly, resilient, and just food system. It emphasizes the need to embrace ecological principles, ensuring the regenerative use of natural resources, minimizing the use of external inputs, promoting closed cycles with minimal negative externalities, and addressing social inequalities.

The Policy is applicable to all the food system related sectors including;

- Agriculture, Livestock Fisheries and Cooperatives,;
- Health Services;
- Land, Environment, Forestry and Natural Resources;
- Water, Irrigation and Sanitation;
- Trade and Industry;
- Finance and Planning;
- Research, Education and Training;
- and
- Culture, Gender and Social Services

1.5 Structure of the Agroecology Policy

The Policy is organized into six sections, each designed to ensure clear approach to the policy's development and execution. The document begins with an Introduction to set the context, outlines the underlying causes of the problem and the rationale for the policy. This is followed by a situational analysis that examines the current state and challenges in the food systems in Makueni. It then presents the policy statements, which articulate what the Government has committed to do to achieve the agroecological transition.

The implementation framework outlines the coordination and administration mechanisms for policy implementation, while the monitoring and evaluation section details how progress will be tracked and assessed. The last section describes the process for periodic updates and revisions, and finally, the Annexes provide additional supporting information and resources.

CHAPTER TWO: SITUATIONAL ANALYSIS

This chapter summarizes the key issues affecting Makueni County's agri-food system and how addressing these would support agroecology transition. The chapter also presents the policy, legal and institutional framework that supports agri-food systems.

2.1 Assessment of key issues

The Makueni County Agroecology Policy is anchored on seven (7) key issues identified during a participatory multi-stakeholder consultations

convened by the County Government as summarized in Figure 2.1 and 2.2. The process involved active engagement of relevant County departments:- Agriculture and Live-stock, Health, and Environment alongside farmer representatives and various development partners. The status and trend of each of the issues is discussed.

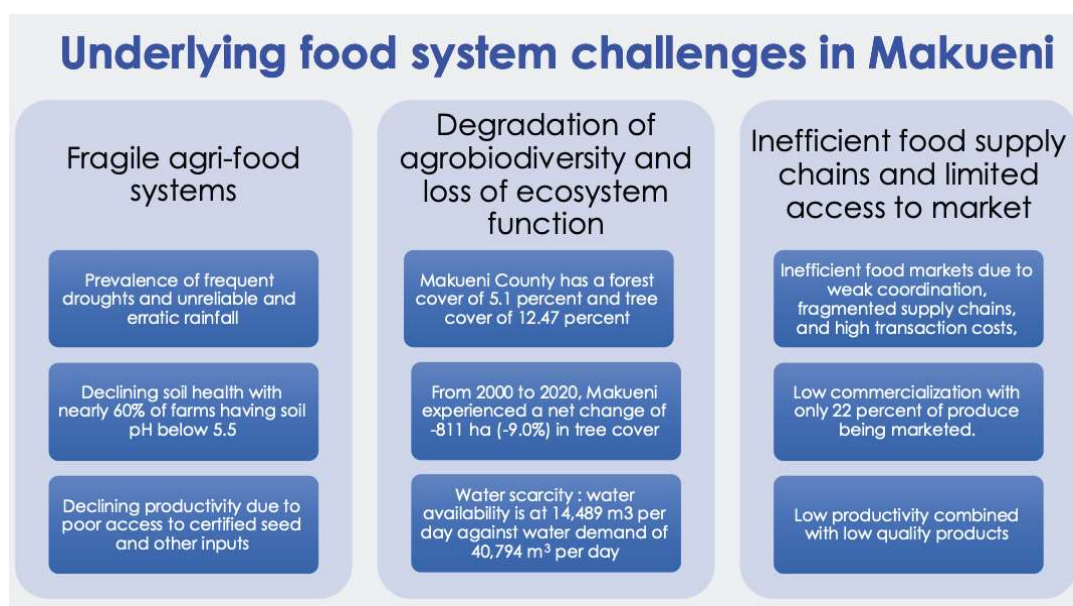


Figure 2. 1: Issues affecting Makueni County's Agri-Food System, 2025

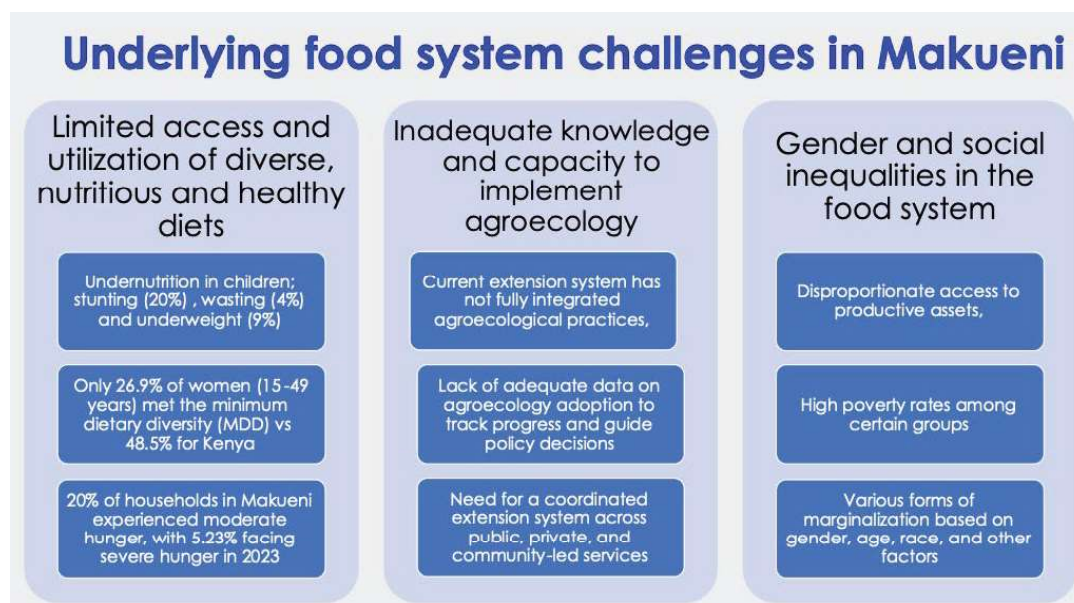


Figure 2. 2: Issues Affecting Makueni County's Agri-Food System, 2025

2.1.1 Fragile agri-food systems

Makueni County is a fragile ecosystem, most of it being ASAL and prone to frequent droughts due to unreliable and erratic rainfall. The delayed onset of rains and early cessation as well as prolonged dry spells have had a negative impact on the production systems, which are largely rain-fed (Government of Makueni County, 2023) . The agri-food systems are characterized by declining productivity in crops, livestock and fisheries - associated with factors such as high costs of inputs, inadequate extension services, increased pests and disease incidence and, declining soil health (Government of Makueni County, 2023).

Samples analyzed from some sites in the County indicate that nearly 60 per cent of farms have acidic soils with pH below 5.5

and with most farms having low organic carbon (TOC) and inadequate nitrogen.

Access to affordable inputs remains a key factor of declining productivity. For instance, in the green grams value chain, certified seed requirement for the County stands at 903,352 kg against a supply of 361,341kg (Government of Makueni County, 2024) . Across the value chains, most farmers use poor quality seeds, which results in low yield, even with the application of high levels of synthetic fertilizers. The overdependence on external inputs limits the use of local indigenous knowledge and innovation, and is associated with the loss of biodiversity and greenhouse gas (GHG) emissions.

Ecosystem degradation has also led to increased cases of human-wildlife conflicts. In 2023, stray elephants destroyed about 1,000 hectares of farmland. Rangeland ecosystem restoration is key for maintaining human-wildlife balance. For sustainable development to be achieved, it is crucial to harmonize the three core elements of economic growth, social inclusion, and environmental protection.

In view of this, adoption of agroecology will simultaneously promote sustainable agricultural production and environmental protection, thereby increasing resilience of food systems.

2.1.2 Degradation of agrobio diversity and loss of ecosystem function in agricultural and other production landscapes

Makueni County has a forest cover of 5.1 percent and tree cover of 12.5 percent. The County's gazetted forest covers 150.2 square kilometers, and the non-gazetted forest covers 76 square kilometers (Makueni County Climate Risk Assessment Report 2023). From 2000 to 2020, Makueni experienced a net change of -811 ha (-9.0%) in tree cover. The decline is associated with deforestation, illegal grazing and logging, and forest degradation. Other activities such as riparian encroachment, sand harvesting, and riverine vegetation destruction are contributing to forest and land degradation.

The County is water scarce, characterised by poor access among the households; water availability in the County is estimated at 14,489 m³ per day against water demand of 40,794 m³ per day (Makueni County Vision 2025). In addition to scarcity, water pollution is a major problem in the County. The causes are varied and include discharge of effluent from upstream sources, oil spillage, solid waste, agrochemicals, poor agricultural practices (Makueni County Environment and Climate Change Policy, 2021). This situation calls for protection, management and restoration of the existing surface and ground water resources.

A Restoration Opportunities Assessment Methodology study (ROAM) undertaken in 2018 identified seven restoration options, namely: - afforestation and reforestation of natural forests; agroforestry; riparian land restoration; road buffer zone restoration; rangeland rehabilitation; plantation forests and rehabilitation of natural forests. Based on this data, the largest opportunity for landscape restoration is in agroforestry (44%), silvi-pastoral and rangeland rehabilitation (32%) and plantation forests (19%).

In view of this, agroecology promotes restoration, conservation, protection and management for household and community resilience. Agroecology emphasizes application of nature-based solutions which are effective, long-term, cost-efficient approach in tackling sustainable land and water resources management and climate change.

2.1.3 Inefficient markets and limited opportunities for the growth and development of agroecological enterprises

Food markets in Makueni County are generally inefficient, characterized by weak coordination, fragmented supply chains, and high transaction costs, which limit market access, reduce profitability for producers, and hinder the overall development of the agri-food sector in the County.

The County produces a range of agroecologically produced food products with high potential for both domestic and export markets. These include, cereals (millet, sorghum), pulses (green grams, pigeon peas, beans), fruits (mango, watermelon, banana, and pixies), vegetables (cow peas) and animal products. However, most (82%) households practice subsistence farming, with only 22 percent of produce being marketed (Government of Makueni County, 2023). Low productivity combines with low quality products (low compliance with sanitary and phytosanitary standards), lack of product differentiation, low agribusiness skills, and limited market information limit market access and penetration.

Moreover, a weak cooperative movement reduces access to credit, farm inputs, collective bargaining, as well as establishment of agri-food enterprises.

Investing in local food markets will promote enhanced access to nutritious and diverse foods for consumers, while increasing and keeping incomes within the local economy and empowering communities to maintain control over their food systems. Additionally, strengthening regional markets and labelling can help Makueni County create a stable demand for agroecologically produced food, benefiting both producers and consumers alike.

To improve access to markets, the Government of Makueni County has made strides in supporting food markets. By 2023, the County constructed and rehabilitated 43 market sheds and connected 16 market sheds to solar lighting and 12 to electricity to increase trading hours (CIDP 2023-2027).

The market hygiene has been improved through installing 60 water tanks to 30 market sheds and public toilets in 24 markets. To support the agroecological transition, there is need to promote development of local markets that emphasize supply of agroecological products.

2.1.4 Limited access and utilization of diverse, nutritious and healthy diets leading to endemic food and nutritional insecurity

Makueni County faces a triple burden of malnutrition and food insecurity, associated with undernutrition (stunting, wasting and underweight), micronutrient deficiencies, and over-nutrition (overweight and obesity).

According to the Kenya Demographic Health Survey 2014, the prevalence of stunting, wasting and underweight in Makueni County was 25.1%, 2.1% and 10.2% respectively for children under five years. In 2022, stunting, wasting, underweight and overweight, in the same cohort, was reported to be 20%, 4%, 9% and 3% respectively, indicating marginal gains in nutrition indicators (KDHS and ICF, 2023).

Among women aged 15-49 years, only 26.9 percent met the Minimum Dietary Diversity (MDD) level, compared to the national average of 48.5 percent. The MDD indicates the proportion of women of reproductive age (15-49 years) who consume a variety of food groups that are critical for their health and well-being, particularly during pregnancy and lactation. In addition, only 39.9 percent children aged 6-23 months in County attained the MDD level with only 22.7 percent of these children consuming zero vegetables or fruits (Government of Makueni County, 2023).

The County Nutrition Action Plan (CNAP) targets the reduction of the prevalence of stunting among children under five years by 40%, childhood wasting to less than 5%, childhood underweight to less than 10%, and reduce malnutrition among older children and adolescent by 15%.

The 2023 County SMART report revealed that 20% of households in Makueni experienced moderate hunger, with 5.23% facing severe hunger. While more than half (58.9%) of households consumed food from over five food groups in the 24 hours prior to the survey, the majority of consumption was from cereals (92%), pulses (60.9%), and milk products (70.8%). Positively, 62.8% of households consumed vegetables, but only 34.9% consumed fruits, despite the County's diverse fruit production.

The County has also seen a dietary shift towards processed foods, leading to a decrease in the consumption of traditional, nutrient-rich foods like sorghum, sweet potatoes, fruits and vegetables, which are important for nutrition and ecosystem resilience.

2.1.6 Gender and social inequalities in the food system

Inequitable access to resources, decision-making, and disparities based on gender, age, and social class hinder marginalized groups' full participation in food systems in Makueni. Makueni women farmers undertake the majority of workload on the farm such as tilling, planting, weeding and harvesting (CIAT 2025). Many men often work off-farm, with women bearing the brunt of daily agricultural activities but do not make key decisions touching on the utilization of the value of their toil e.g., on the sale and use of income from agricultural produce due to cultural and social norms.

The Makueni County Gender Policy identifies gender inequality and discrimination as a major obstacle to socio-economic and political development of its people, and a serious impediment to development that affects the whole County and thus needs to be eliminated through appropriate individual and collective strategies.

The CIDP emphasizes the Government of Makueni County's commitment to equitable stakeholder engagement and the need for inclusion by addressing equity gaps across all sectors. The Public Participation Policy ensures that all citizens, particularly marginalized groups, are actively involved in the design and implementation of sustainable agricultural programs.

The underlying barriers to an equitable food system include disproportionate access to productive assets, high poverty rates among certain groups, and various forms of marginalization based on gender, social class, age, race, disability, ethnicity and other factors. These disparities prevent full participation and benefit from the food system, hindering inclusive and sustainable development.

2.1.7 Weak mainstreaming of agroecology in existing policy and institutional frameworks

Makueni County has made progress in creating an enabling environment for sectoral growth. However, weak coordination among key departments limits the effective implementation of agroecological principles. Although relevant policies exist, agroecology is not well integrated into the CIDP, annual work plans, budgets, or monitoring frameworks. Strengthening interdepartmental collaboration with clear roles and responsibilities as well as enhancing partnerships with other state and non-state actors is essential for the successful and sustainable transition to agroecology.

2.2 Policy, Legal and Institutional Framework

2.2.1 International and regional frameworks

Globally, agroecology is increasingly recognized as a transformative pathway for sustainable food system change. International frameworks like the United Nations' Sustainable Development Goals (SDGs), particularly SDG 2 (Zero Hunger), SDG 12 (Responsible Consumption and Production), and SDG 13 (Climate Action), align with agroecology's principles of sustainability, resilience, and equity. Agroecology can help reduce poverty (SDG 1) and inequality (SDG 10), by contributing to decent work (SDG 8) and increasing access to food (SDG 2). In addition, SDG 12 on sustainable production and consumption is a major vehicle for ensuring that we have sustainable agri-food systems.

Regulating and reducing emissions and promoting renewable energy (SDG 13), conservation, promoting marine diversity and regulating fishing practices (SDG 14) and reversing man-made deforestation and desertification to sustain all life on earth (SDG 15) are also key goals for driving the agroecology agenda. Adopting agroecology as an agricultural approach will help Makueni County shift to a sustainable and resilient path that provides enough, safe and nutritious food while respecting human rights.

Agroecology offers a unified, holistic approach that supports the goals of all three Rio Conventions, namely the UNFCCC on climate action, the U.N. Convention on Biological Diversity, and the UNCCD on combating land degradation.

Target 10 of the Kunming-Montreal Global Biodiversity Framework (GBF) specifically focuses on ensuring areas under agriculture, aquaculture, and forestry are sustainably managed through agroecology and other nature-based solutions. Kenya is signatory to the Nagoya Protocol on access to genetic resources and the fair and equitable sharing of benefits arising from their utilization.

The UN Climate Conference (COP 27) held in 2022 recognized the priority of safeguarding food security and ending hunger, and vulnerabilities of food production systems to the adverse impacts (UNFCCC, 2022). While COP 28 did not explicitly mention agroecology, it supported related principles through the Emirates Declaration on Sustainable Agriculture and Food Systems.

The COP 29 provided a more focused platform for agroecology, emphasizing its critical role in climate action and the transformation of food systems. This growing recognition underscores the need to integrate agroecology into national and global climate policy frameworks.

Additionally, the Paris Agreement (2015) explicitly recognize the role of agroecological principles and practices in addressing climate change and supporting the transition to low-emission, climate-resilient development (IPCC, 2023).

At the regional level, the Malabo Declaration (2014), under the African Union (AU), highlights the importance of sustainable agricultural practices and funding, with agroecology playing a key role in achieving food security, improving rural livelihoods, and promoting climate resilience.

Additionally, the Comprehensive Africa Agriculture Development Programme (CAADP) encourages the adoption of agroecological principles to enhance food sovereignty, while regional movements such as the Alliance for Food Sovereignty in Africa (AFSA) advocate for agroecology as a means to foster equitable, climate-resilient, and biodiversity-friendly agricultural systems.

These frameworks collectively underscore agroecology as essential for transforming our food systems to meet current and future challenges.

2.2.2 National frameworks

The right to food is enshrined in the Constitution of Kenya. Every person has the right to be free from hunger, and to have adequate food of acceptable quality (Article 43(1)c), while every child has the right to basic nutrition, shelter and health care (Article 53(1)c).

Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life (FAO 2002).

Every Kenyan has the right to a clean and healthy environment and to have the environment protected for the benefit of present and future generations (Article 42a), but also have obligations to protect and conserve the environment (Article 69(2). Parliament is to enact legislation that recognize and protect the ownership of indigenous seeds and plant varieties, their genetic and diverse characteristics and their use by the communities of Kenya (Article 11(3) b).

The constitution recognizes that the National and County Governments are distinct and interdependent, conducting their mutual relations based on consultation and cooperation (Article 6(2). Agriculture and aspects of the environment are devolved functions.

The national government is responsible for agricultural policy development, while County Governments are responsible for agriculture, including crop and animal husbandry, livestock sale yards, county abattoirs, plant and animal disease control, and fisheries (Fourth Schedule).

Protection of the environment and natural resources is a national function, while implementation of specific national government policies on natural resources and environmental conservation, including soil and water conservation, and forestry are devolved to the counties. Trade development and regulation, including markets, trade licenses, fair trading practices, local tourism, and cooperative societies are devolved functions.

The Agricultural Policy 2021 recognizes agroecology as one of the approaches to dealing with climate change and seeks to promote agroecology farming practices for crops, livestock and fisheries. The policy explicitly recommends the promotion of agroecology among other nature-based solutions as way of achieving sustainability and resilience of food systems.

This justifies the development of an agroecology strategy as way of realizing these aspirations. To operationalize the Agriculture Policy, the National Agroecology Strategy for Food System Transformation (2024-2033) was developed and officially launched in November 2024. The Strategy notes that there is limited integration of agroecological approaches in the design of food system interventions.

The strategy also encourages counties to develop county level policies tailored to their specific contexts. Developing county specific agroecology policies will ensure that each county adapts the agroecological transition to local needs, priorities, and challenges.

To support implementation of the NAS-FST, several institutional mechanisms have been established. These include the Agroecology Summit to provide overall policy guidance on agroecology implementation in collaboration with the Council of Governors (COG). It's made up of Principal Secretaries (PSs) of relevant line Ministries, National Treasury, representatives of development partners, National Farmers' Association, and the Intersectoral Forum on Agrobiodiversity and Agroecology (ISFAA) – the secretariat of the Summit.

The National Technical Committee on Agroecology has the responsibility of coordinating the mainstreaming and implementation of agroecology policies and practices across all sectors and counties.

2.2.3 County level frameworks.

A number of frameworks support the agri-food related sectors (Agriculture, Livestock, Environment, Water, Forestry, Trade) in the County. The main legal frameworks that are linked to agroecology are listed in Table 2.

Table 2: County policy framework linked to agroecology

Framework	Description
Makueni County Integrated Development Plan (CIDP) 2023-2027	The County Integrated Development Plan (CIDP) aligns with agroecology by enhancing extension services through private sector and NGO involvement, promoting sustainable agricultural practices to improve food security and reduce poverty. Its focus on water management, including the construction of dams for irrigation, supports climate-resilient farming. Furthermore, the CIDP's commitment to decentralization and inclusive planning ensures that agroecological principles are integrated at the community level, empowering farmers with locally adapted, sustainable solutions.
Makueni County Agriculture and Livestock Policy 2021	The strategy recognizes the declining biodiversity and the need to balance the protection of biodiversity as agricultural systems modernize. The strategy puts emphasis on commercial, large scale, and modern agriculture with a view to securing sustainable food security and mitigating against climate change impacts. The development of an agroecology policy would provide specific actions to achieving sustainability in agriculture and food systems.
Makueni Environment and Climate Change Policy (ECCP), 2021	Provides a holistic framework to guide the management of the environment, natural resources and address issues faced by Makueni County due to a changing climate. It further ensures that the linkage between the environment and poverty reduction is integrated in all county government processes and institutions in order to facilitate and realize sustainable development at all levels.

Framework	Description
Makueni County Co-operative Act 2017	Recognizes the need to strengthen cooperatives The Makueni County Co-operative and provides mechanisms to guide the development and sustainability of the Makueni County cooperative sector to optimally contribute towards social and economic development. The Act provides for establishment of a Co-operative Development Fund at 2% of the total county development budget.
Makueni County Climate Change Act 2022	The Makueni County Climate Change Act provides a comprehensive framework and mechanisms for mobilizing and facilitating collaboration among the county government, communities, and various stakeholders to effectively respond to climate change. It focuses on implementing appropriate adaptation and mitigation measures, ensuring that local communities are equipped to address the challenges posed by climate change.
Makueni County Climate Change Action Plan 2023 – 2027	The MCCAP is a 5-year Action Plan that provides mechanisms for mainstreaming climate change into all sectors and the County Integrated Development Plan (CIDP). The action plan is developed in line with the National County Climate Change Action Plan.
Makueni County Disaster Management and Special Programmes Policy (2021)	The Policy aims at the establishment and strengthening of disaster management institutions, creating and also recognizing the partnerships that subsist in this endeavor, networking and mainstreaming disaster risk reduction in the development process of the County in order to strengthen the resilience of vulnerable groups to cope with potential disasters.

Overall, while relevant policies exist, agroecology remains insufficiently reflected in the CIDP, County Spatial Plans, education and extension systems, annual work plans, budgets, and monitoring frameworks. This underscores the need for a dedicated agroecology policy to institutionalize its principles, enhance interdepartmental coordination, and ensure effective integration into county planning and implementation.

CHAPTER THREE: POLICY STATEMENTS

This chapter presents the policy options for facilitating agroecological transition in Makueni County. The policy direction arises from the challenges highlighted and the opportunities for addressing them.

3.1 Transition to sustainable agri-food systems

Makueni County faces challenges including erratic rainfall, soil degradation, and overreliance on synthetic agrochemicals to manage pests and diseases. The excessive use of fertilizers has also been associated with nutrient pollution of water bodies. Studies on soil fertility have shown low soil organic carbon leading to fragile soils with reduced water holding capacity and increased vulnerability to erosion.

Access to affordable inputs remains a key driver of declining productivity. Overdependence on external inputs also limits use of local indigenous knowledge and innovation. Thus, adoption of agroecology can simultaneously promote sustainable agricultural production and environmental protection, thereby increasing resilience of our food systems.

3.1.1 Policy Issue: Fragile agri-food systems

The County agri-food system is fragile owing to various factors including poor agricultural practices, water scarcity, largely ASAL landscapes, climate change, human-animal conflict, and unsustainable exploitation of natural resources.

3.1.2 Policy Objective

To transition to an agri-food system that embraces ecological practices for sustainable production and healthy ecosystems.

3.1.3 Policy Strategies

The County Government will;

1. Promote integrated soil health and fertility management to reduce dependency on synthetic fertilizers in the County.
2. Support practices that enhance on-farm diversification through crop, livestock, trees, and fisheries combination for healthy food, income, and ecosystem restoration.
3. Promote conservation of indigenous crop and animal genetic resources for resilience.
4. Promote the conservation and utilization of indigenous seeds among stakeholders and linkages with the National and County Agricultural Research Systems including establishment and support to farmer-managed community seed banks.
5. Create awareness, build capacity, and behavior change by enhancing and incentivizing the adoption of agroecological practices such as use of biopesticides and biofertilizers by farmers and other food system actors, including through subsidy programs.

6. Strengthen mechanisms for production, distribution and use of locally produced agroecological/organic inputs to reduce dependency on external inputs and agro-chemicals.
7. Enhance monitoring systems, embrace use of early warning signals, and rapid response strategies for pests and disease management including invasive and alien species.
8. Promote natural and community-based conflict management strategies to protect farms from wildlife encroachment.

3.2 Agroecosystem restoration and resilience to climate change

Makueni County is largely an ASAL, facing low forest and tree cover. In the period, 2000 to 2020, the County experienced a net change of - 811 ha (-9.0%) in tree cover. This change was associated with deforestation, illegal grazing and logging and, forest degradation. At the same time, the County is affected by a number of hazards namely drought, flash floods and strong winds, which are associated with climate risks. This in turn increases the vulnerability of communities and weakens their capacity to manage such shocks.

Water availability remains a challenge as the County has a deficit of 25,000 m³ /day. In addition, average distance to nearest water source is 5Km, indicating poor access to water as well as potential for increased water conflicts.

Adoption of agroecology will promote resilience through restoration, conservation, protection and management of natural resources.

3.2.1 Policy issue: Degradation of - agrobiodiversity and the loss of ecosystem function in agri-food production landscapes

The degradation of agrobiodiversity and the loss of ecosystem services in agricultural landscapes undermine resilience therefore compromising food security and long-term sustainability.

3.2.2 Policy Objective

To restore agrobiodiversity and enhance ecosystem function for increased resilience and sustainability

3.2.3 Policy Strategies

The County Government will;

1. Facilitate adoption of technologies, innovations and management practices, that enhance water harvesting, storage and water use efficiency in agricultural, livestock and fishery systems
2. Integrate local and indigenous knowledge and practices in participatory innovation for landscape rehabilitation and restoration
3. Promote partnerships and initiatives to support carbon sequestration and development of carbon credit market for the benefit of all stakeholders in the agri-food system
4. Promote establishment of nature-based enterprises such as apiculture, silkworm, black soldier fly, azolla production, vermicomposting and conservancies

5. Facilitate landscape restoration and conservation by rehabilitation of degraded ecosystems such as rangelands, riverine ecosystems, and forests through community-based groups such as Water Resources Users Associations (WRUAS) and Community Forest Associations (CFAs).
6. Promote risk management strategies (transfer, reduction, restoration and reserves) including crop and livestock insurance and, strengthening climate early warning systems
7. Support climate actions that are responsive to the needs of youth, women, elderly and persons with disability.
8. Establish buffer zones of vegetation along water bodies to filter runoff and help prevent pollution and eutrophication of water bodies.
9. Identify, map and regulate zones for agricultural practices in terms of type of resource, systems, climatic and ecological diversities while minimizing subdivision of land as part of County Spatial Planning
10. Enforce regulations and promote sustainable practices to reduce water pollution and protect resources.

3.3 Agroecology Enterprises and Markets

Inefficiencies in food supply chains, including high transaction costs and weak linkages, remain a

key hindrance to effective food access and distribution. According to the Kenya Organic Data Survey (2024), there is a significant demand for various organic products that currently surpasses the available supply, presenting an opportunity for organic farmers and producers to expand their operations and meet the growing market needs.

Despite the growing demand for agroecological products, challenges with certification costs, market and distribution and supply chain management exist. To promote equitable access to nutritious and diverse foods, there is need to invest in local food systems where markets provide farmers and consumers with better access to food, ensuring communities have control over their food. Agroecology puts the aspirations and needs of those who produce, distribute and consume food at the heart of food systems.

3.3.1 Policy Issue: Inefficient markets and opportunities for the development of agroecological enterprises

Inefficient food supply chains such as high transaction costs and weak linkages constrain effective food distribution and access. Additionally, limited access to market opportunities impedes the sustainable growth and scaling of agroecological enterprises, restricting their ability to thrive and contribute to equitable socio-economic development in Makueni County.

3.3.2 Policy Objective

To promote agroecological enterprise development for improved livelihoods and inclusive socio-economic development in Makueni County.

3.3.3 Policy Strategies

The County Government will;

1. Strengthen farmer cooperatives and support market infrastructure for marketing, distribution, storage and value addition for agroecological products
2. Allocate market outlets for agroecological inputs and products including in local markets, special economic zones and industrial parks.
3. Strengthen farmer-led Agro-Ecological Enterprises (AEEs), cooperatives and valued added processing initiatives to increase uptake and adoption of agroecological products.
4. Strengthen market linkages and information systems on agroecological products for fair pricing and marketing
5. Promote public-private partnerships for increased access to domestic, regional and international markets for agro ecological products and services
6. Promote public procurement of agroecological products such as in hospitals, schools, and public offices, including
7. Develop incentives for young entrepreneurs, women, persons with disabilities and community-led enterprises that capture and retain value locally, recognizing and addressing their specific constraints and needs
8. Promote branding, certification and standardization of local agroecology products to enhance product differentiation and access to markets
9. Link (AEEs) to financial opportunities in green growth, insurance and Business Development Services (BDS) to facilitate access to green financing by actors.

3.4 Food and nutritional security for all

Achieving food and nutrition security while at the same time reversing and minimizing damage to the natural environment is critical for sustainable development. Makueni County faces a high burden of malnutrition and food insecurity reflected in coexistence of undernutrition (stunting, wasting and underweight), micronutrient deficiencies, and over-nutrition (overweight and obesity).

In 2022, the under five children stunting level stood at 19.8 percent which is above the national average of 17.6 percent (KNBS and ICF, 2023). In addition, only 26.9 percent of women aged 15–49 met the minimum diversity level compared to the national average of 48.5 percent (KNBS and ICF, 2023).

At the same time, there has been increased cases of non-communicable and other chronic diseases, some of which have been associated with unhealthy diets.

Unfortunately, the traditional crops which are drought tolerant and nutrient dense have largely been abandoned. This calls for mechanisms for increasing access to healthy, diverse and safe diets, while at the same time minimizing damage to our ecosystems.

3.4.1 Policy issue: Limited access and utilization of diverse, safe, nutritious and healthy diets impacting negatively on food and nutritional security

Makueni County faces food and nutritional security reflected poor health indicators, some worse than the national averages.

This is in part due to limited access to diverse, nutritious, safe, and healthy diets despite the County producing variety of fruits, vegetables and other underutilized products.

3.4.2 Policy Objective

To promote healthy, diverse, safe, nutritious and culturally appropriate diets for all

3.4.3 Policy Strategies

The County Government will;

1. Promote One Health Approach to strengthen food safety, enhance resilience and minimize incidence of diseases
2. Strengthen food safety systems to eliminate harmful and unsafe foods from the market through enhanced regulation, surveillance, enforcement, and public awareness along the entire food supply chain
3. Stimulate consumption of diverse safe and healthy diets in communities, public and private institutions
4. Support nutrition sensitive programming that sustainably caters for the nutritional needs of different groups including women, youth and persons with disabilities
5. Promote production and consumption of underutilized foods for resilient, stable local food systems
6. Stimulate the integration of local and indigenous knowledge and practices in the production and consumption of food
7. Support consumer education, awareness and behavior change on benefits of agroecological products proactively as an investment into primary healthcare and environmental conservation
8. Enhance mechanisms and investments for food waste management (reduce, recycle, reuse) at household and farm levels and municipal markets.

9. Mainstream zoning in municipalities that supports waste water recycling and spaces for waste segregation and processing
10. Promote utilization of green energy sources such as, solar, biogas, wind power etc. at institutional and household levels

3.5 Knowledge, training and capacity strengthening for the agroecology transition

Agricultural extension is an avenue for sharing knowledge, technologies, management practices among farmers and other actors. Makueni County has been implementing the Enhanced Extension Programme to accelerate agricultural production, productivity and profitability through coordinated extension services, enhanced linkages for input supply and structured agro-marketing. Despite the improvement, the current extensive service has knowledge gaps, limited visibility, inadequate funding and a top-down approach which hinders widespread uptake.

Therefore, there is need have a coordinated extension service across public and private and community providers while ensuring that the services are demand driven and leveraging on technology.

3.5.1 Policy Issue: Inadequate knowledge and capacity to implement agroecology

The Makueni extension program including the training centres are yet to incorporate agroecology leading to knowledge gaps across the public, private and community-led extension service.

3.5.2 Policy Objective

To enhance the capacity and knowledge of extension service providers and relevant stakeholders for sustainable agroecological transition.

3.5.3 Policy Strategies

The County Government will;

1. Entrench agroecology into the County agricultural extension services for continuous support and guidance on agroecological transition.
2. Facilitate partnerships with research institutions, TVETs, and local innovators to co-create agroecological solutions contextualized to the agro-ecological conditions in the County.
3. Strengthen the public and private extension services to scale-up the adoption of agroecological practices.
4. Develop a coordinated multi-stakeholder approach for knowledge sharing and collaborative learning in agroecology from the county, sub-county, and ward levels.

5. Provide incentives, technical support and organize practical demonstrations to encourage farmers and other actors to implement agroecological innovations.
6. Design and implement a standardized curriculum and models on agroecology for use in schools (4k clubs), Agricultural Training Centers (ATCs), County Technical Training Institutes (CTTIs), and other relevant educational institutions to build long-term capacity in agroecological transition.

3.6 Enabling environment for agroecology

The transition to sustainable agri-food systems is supported by a range of international, national and county frameworks. Particularly, the NAS – FST (2024 – 2033), which supports the mainstreaming of agroecology into existing national and county plans and strategies to enable their adoption.

To this end, counties are required to domesticate the key provision of the Strategy. While Makueni County has a number of frameworks supporting the agri-food sector, agroecological initiatives are not properly anchored in these frameworks.

At the same time, there is need to strengthen mechanisms for consultation and cooperation among the national and county governments and non-state agencies to ensure the agroecological transformation of food systems.

3.6.1 Policy Issue:

Weak mainstreaming of agroecology in existing policy and institutional frameworks

The Policy and institutional framework for implementing agroecology practices in Makueni County is weak characterized by poor interconnect-edness of the relevant departments, silo implementation and reporting structures.

3.6.2 Policy Objective

To create an enabling environment for mainstreaming and scaling up agroecological practices in Makueni County

3.6.3 Policy Strategies

The County Government will;

1. Mainstream agroecology in the County policies, laws, regulations and plans across relevant sectors and departments to ensure alignment, coherence and synergy with the national and county agroecology priorities.
2. Establish multisectoral and inter-departmental coordination mechanisms for designing, implementation and, monitoring and evaluation of agroecology-related policies, plans and financing.
3. Promote horizontal integration of agroecology across departments to ensure coherence in decision-making, consistency in policy actions, equitable distribution of resources, and collective accountability in agroecological transitions.

4. Strengthen resource mobilization and funding for agroecology through increased government funding and Public Private Partnerships (PPPs), while addressing needs of all actors including women, youth, the elderly, children and persons with disabilities.
5. Promote market and non-market incentives to support agroecological transition, including technical assistance, participatory guarantee systems, subsidy programs, collective action, certification and payment for ecosystem services.

3.7 Social Equity, Inclusion and Governance

Makueni County faces persistent challenges such as high poverty, unequal access to resources and opportunities, socio-economic disparities, and exclusion of marginalized groups. Structural barriers including inequitable distribution of public services, limited participation of vulnerable groups in decision-making, and entrenched socio-cultural biases have contributed to governance gaps that undermine efforts toward social justice.

Weak enforcement of progressive policies, administrative inefficiencies, and limited public accountability mechanisms further exacerbate inequalities, making it difficult to achieve meaningful inclusion.

Agroecology seeks to address power imbalances, promote social justice, nurture identity and culture, and enhance resilience of all

persons including women, youth, elderly and persons with disabilities.

3.7.1 Policy Issue: Inequitable access to resources and decision-making processes within the agri-food system

3.7.2 Policy Objective

To promote inclusivity and equitable access to resources for improved governance of the agri-food system

3.7.3 Policy Strategies

The County Government will;

1. Foster change in power dynamics by encouraging greater participation of vulnerable and marginalized groups in decision-making on access, control, share and utilization of productive resources.
2. Promote awareness and a strong focus on the rights of women, children, youth, persons with disabilities and indigenous people to ensure productive capability.
3. Promote an enabling environment for job opportunities by fostering investment in youth and women-led green enterprises and initiatives.
4. Foster socially inclusive financial systems for scaling-up green and inclusive economy.
5. Strengthen public participation forums through community-action planning to co-create agroecological initiatives and programs that reflect local needs and knowledge.

CHAPTER FOUR: IMPLEMENTATION FRAMEWORK

Makueni Agroecology Policy implementation will involve State and non-state actors at the National and County levels. The actors will play a key role in the implementation of the Policy options outlined in Chapter Three, or coordination of the actors and collective actions in the Policy.

The Policy will also require technical and financial support from the public and private sector actors. The Policy will be implemented through the legal and institutional framework described below. Thematic strategies will be developed to address specific sub-sector requirements and for better implementation of this policy.

4.1 Coordination Framework and Administrative Mechanisms

The Government of Makueni County will be responsible for policy formulation, resource mobilization, and implementation oversight.

The County will mainstream policies, strategies and plans arising from this Policy horizontally across relevant sectors and vertically at sub-county, ward, and village levels as well as in County institutions. The departments responsible for Agriculture, Environment, Health, Trade/Cooperatives, and Education will be responsible for assigned roles in relation to agroecology. The governance of the Agroecology Policy is anchored in a participatory, multi-stakeholder framework, with the Agroecology Summit at its apex (Figure 4.1).

The Summit will serve as a high-level convening platform bringing together the County Secretary (chairperson), County Executive Committee Members (CECMs), and Country Directors of development partners, to provide strategic guidance, assess progress, and reinforce political commitment to agroecological transformation.

The Agroecology Policy Implementation Committee (APIC) will lead policy implementation. Chaired by the CECM responsible for the agriculture function, APIC will comprise of the Chief Officers from key departments; Agriculture, Livestock, Health, Environment, Climate Change, Forestry, Education, Trade, Industry, Cooperatives, Water, Sanitation, and Irrigation.

It will also include representatives from national government agencies operating at the County level (e.g., AFA, KEPHIS, NDMA, NEMA, and Meteorological Department) and non-state actors such as development partners, CSOs, farmer associations, and cooperatives. The Chief Officer for Agriculture will serve as the Secretary to the APIC.

To support the implementation, the Agroecology Secretariat, composed of technical directors, representatives from CASSCOM, and multi-sectoral partners will serve as the coordination hub, linking policy decisions with county-level execution. A County Technical Committee on Agroecology, made up of departmental directors and development partners, will provide technical input, planning support, and evidence-based recommendations.

At the grassroots, Agroecology Value Chain Actors and Associations will ensure community-level participation and feedback, while similar APIC structures at Sub-County and Ward levels will be in place to promote localized coordination.

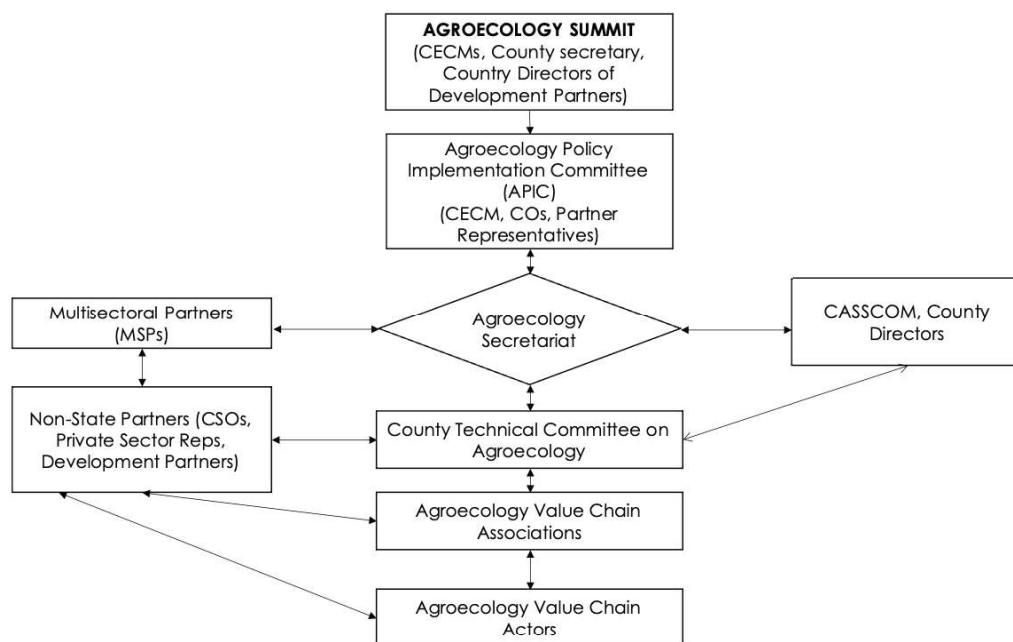


Figure 4.1: Coordination Structure for Policy Implementation



(Makueni County Multistakeholder platform members during the final validation meeting to discuss the final draft of the Makueni agroecology policy document).

The APIC will report to the County CEC and the Governor, and will collaborate with national mechanisms including, JASSCOM, and the Council of Governors (CoG) to ensure coherence and synergy between county and national agroecology efforts. Members of the APIC will be co-opted in the CASSCOM which will have a standing Technical Working Group on Agroecology. CASSCOMs are anchored on Legal Notice (No. 2 of 2012) on Establishment of Joint Committees in Agriculture Sector under the Intergovernmental Relations Act. 2012.

The mandate of the APIC will be to:

1. Mainstream the Makueni Agroecology Policy in County Integrated Development Plans (CIDPs) and coordinate the development of annual work plans.
 2. Develop and supervise the implementation of the elements of the County Action Plan linked to the Agroecology Policy
 3. Foster collaborations and linkages with public and private institutions in the management and delivery of agroecology programs and services.
 4. Promote sector-wide linkages with intra and cross County initiatives on Agroecology
- The Agroecology Policy Implementation Committee (APIC) will comprise key players in the Makueni agri-food system including but not limited to the following institutions and actors;
1. Departments for Agriculture, Livestock and Fisheries, Health, Education, Trade, and Environment
 2. Representatives of National Government agencies at the County level such as AFA, KEPHIS, NEMA, KALRO, NDMA, etc.
 3. Representative of the Inter-Sectoral Forum on Agrobiodiversity and Agroecology (ISFAA) which is the secretariat for implementation of the NAS-FST
 4. Representatives of Farmer organizations promoting agroecology
 5. Representative of the Kenya Association of Manufacturers (KAM)
 6. Representatives of the Organic Fertilizer and Input Manufacturers Association (OFIMAK)
 7. Representative of civil society organizations working on agroecology at the regional level
 8. Representative of development partners working within the County
 9. Representative of food transporters/logistics organizations working within the county
 10. Representatives of universities, academic institutions, and research organizations in the county
 11. Representatives of other stakeholder groups that may be nominated by the committee

4.2 Legal and Regulatory Framework

Laws and regulations are integral to effective policy implementation and operationalization. The legal framework for crops, livestock, fisheries and irrigation is based on a body of laws that require review and development to conform to and implement the Constitution and further support implementation of this Policy.

The County Government in consultation with stakeholders will review and harmonize the agricultural and related sector laws to ensure compliance with the Constitution and support the implementation of this Policy. Some of the existing policies and legal frameworks that provide guidance on the implementation of the policy include the Agricultural Policy (2021), The Makueni County Agriculture and Livestock Policy (2021), The Makueni County Integrated Development Plan (CIDP) III (2023-2027), Makueni County Environment and Climate Change Policy (2021), Makueni County Education & Training Policy (2021), and Makueni County Disaster Management and Special Programmes Policy (2021).

A Makueni Agroecology Act and Regulations will be developed to entrench the institutional framework described above and to address the specific sector needs and aid in the agroecology transition within the County. The Act will also create an Agroecology Fund and establish various fiscal and non-fiscal incentives to promote and catalyze an agroecology transformation in Makueni County.

4.3 Funding Arrangements

To implement this Agroecology Policy, the Government of Makueni County will allocate funds to the Department of Agriculture, Livestock Fisheries and Cooperative Development. Part of this funding will be through the proposed Agroecology Fund at 10 percent of the County's agriculture budget. However, efforts will be made to mobilize additional financial support from development partners to realize the objectives of the Policy.

Green finance initiatives such as carbon credit programs linked to agroecological practices such as agroforestry and soil health interventions will also be promoted to ensure adequate funding for the policy implementation. Direct financing and investments by the private sector through Public Private Partnerships (PPPs) will be critical to the successful implementation of the Makueni Agroecology Policy.

Mechanisms will be put in place to strengthen the rural credit institutions to support farmers' investments in agroecological innovations and production, savings and risk management; introduction of simple procedures in providing loan facilities for agricultural activities and agro-based start-ups and industries; ensuring availability of credit to farmers and other agroecological value chain actors at concessionary interest rates and introduction of appropriate agricultural insurance schemes to protect farmers from risks associated with natural calamities and climate change shocks.

The involvement of NGOs and civil society in resource mobilization, capacity development and general oversight over governance, trade issues and other policy interventions will be essential. Commercialization of products such as production and sale of organic fertilizers from the Mango processing plant and municipal waste will also be considered.

The Government of Makueni County will be required to create a conducive regulatory environment to facilitate the participation of the private sector in agroecological transition.

CHAPTER FIVE: MONITORING AND EVALUATION

For successful implementation, the Policy will be integrated into the CIDP and Annual Plans, and an M&E framework developed as an integral component to ensure the policy objectives are achieved in a cost effective, coordinated and harmonized manner.

5.1 Monitoring

The County Department of Agriculture will collaborate with the National Ministry of Agriculture and Livestock Development (MoALD), County Departments and Agencies, private sector and other stakeholders to develop an M&E framework aligned to the National M&E Framework for the National Agroecology Strategy for Food System Transformation (2024 – 2033) within six months of the adoption of the Policy.

The M&E framework is expected to also align with the National Integrated Monitoring and Evaluation Systems (NIMES) and have clear terms of reference for relevant stakeholders in data collection and reporting at all levels.

The County Integrated Development Plans (CIDPs) which will have integrated the Agroecology Policy will serve as the foundation for agricultural M&E, supported by County Agricultural Sector M&E Units and County Performance Management Frameworks (CPMFs) that track agricultural projects, extension services, and resource utilization. Key performance indicators (KPI) linked to the Policy Focus areas will be developed and tracked for evaluation and reporting purposes. A digital dashboard of the M&E framework will also be developed and linked to the National Agroecology Strategy's M&E Framework.

Table 5.1 M&E Framework for Agroecology Policy

Component	Indicators	Data Source	Frequency of Monitoring	Responsible
Agroecology adoption	Farmers adopting agroecological practices (organic farming, agroforestry, intercropping) (%)	Field surveys, extension officer reports	Quarterly	County Dept. of Agriculture, NGOs, Farmer Groups
Soil health and land use	Soil fertility improvement (organic matter content, erosion control)	Soil testing reports, GIS mapping	Annually	Research institutions, CASSCOM
Climate resilience and adaptation	Water conservation practices (rainwater harvesting, irrigation efficiency)	Farm-level data, meteorological reports	Bi-annually	County Water and Environment Dept., Agroecology Technical Working Group

Component	Indicators	Data Source	Frequency of Monitoring	Responsible
Food and nutrition security	Increase in household food production and diversity (%)	Household surveys, nutrition studies	Annually	Public Health Dept. Dept of Agriculture, Development Partners, CASSCOM
Market access and economic impact	Increase in income from agroecological products (%)	Market assessments, cooperatives' reports	Quarterly	Trade and Cooperatives Dept.
Knowledge and capacity building	Number of farmers trained in agroecological practices	Training attendance records, workshops	Monthly	Agriculture Extension Services, Development partners
Policy and governance efficiency	Level of multi-stakeholder coordination in implementation	Policy reviews reports, stakeholder engagement meetings	Annually	CASSCOM, Agroecology Technical Working Group

5.2 Evaluation

The Monitoring and evaluation framework will provide clear benchmarks for performance evaluation using measurable metrics that reflect the progress and success of the strategy. The KPIs will serve as a tool to monitor outcomes, identify challenges, and ensure continuous improvement throughout the implementation process. Comprehensive data collection tools will be designed and implemented, with clear indicators to address data needs and requirements.

There will be quarterly progress reports by the Chief Officer/APIC Secretary presented to the Cabinet and other stakeholders. Regular farmer and stakeholder feedback surveys will be carried out to rate the extent of agroecological transition against the set targets, and the data disseminated to the relevant stakeholders.

External audits from agroecology experts and research institutions will be engaged to determine whether the County is taking the right direction in agroecological transition, and identify the gaps which could be worked on to improve the transition. The policy will be reviewed periodically to address the sector challenges and emerging issues.

5.3 Reporting

Regular and consistent reporting, essential for keeping stakeholders informed about the policy's progress will be undertaken at the various levels of implementation. Reporting will provide both quantitative and qualitative data of the Makueni Agroecology Policy implementation, highlighting achievements, challenges, and areas where adjustments will be need to be made. Reporting structures outlining formats and frequencies for providing updates on the policy implementation progress with clear outputs and outcomes results/indicators and associated means of verification will be established.

Table 5.3 Reporting Formart

Report Type	Content	Responsible	Frequency
Quarterly progress reports	Implementation updates, success stories, challenges	APIC/Chief Officer	Quarterly
Annual performance Review	Impact assessment, policy adjustments	CASSCOM, Research Institutions	Annually
Stakeholder learning workshops	Best practices sharing, innovation adoption	Farmer Groups, NGOs, Research Institutions	Bi-annually

5.4 Learning

Stakeholders with specified information needs will be identified and reports tailored to address different information needs. The M&E reports will be structured to ensure findings from monitoring and evaluation activities can be used to continuously improve policy implementation and inform the future programming on agroecology. The experiences and learnings from the implementation of the agroecology programmes and initiatives will act as a guide to the development of new policies and strategies that will enhance the transition.

CHAPTER SIX: REVIEW OF POLICY

The Makueni Agroecology Policy will be reviewed every ten (10) years after its initial implementation to assess its effectiveness, relevance, and alignment with the County's evolving agricultural, environmental, and socio-economic needs. However, an earlier review can be initiated in the event of the following circumstances;

Constitutional changes: If there are significant amendments or changes to the Constitution of Kenya that affect agricultural or environmental governance, the policy should be reviewed to ensure alignment.

Calamities or emergencies: In the event of major environmental, climate-related disasters, or public health crises that impact the food system, a review may be warranted to adjust the policy to address the new challenges.

Alignment with regional or international frameworks: When there are updates to regional or international agreements, such as the African Union's Agenda 2063, the UN's Sustainable Development Goals (SDGs), or other frameworks, the policy may need to be reviewed to ensure alignment.

Emerging issues or challenges: If new issues arise, such as technological advancements, shifts in market dynamics, or changes in land use patterns, a review may be necessary to ensure the policy continues to address contemporary needs effectively

The Government of Makueni through the County Department of Agriculture, Livestock, Fisheries and Cooperative Development, in collaboration with County Agroecology Summit and Secretariat should take the lead in initiating the policy review process, as they are the primary agencies involved in implementation of agroecology. The review process should utilize evidence and lessons from previous performance evaluation, benefiting from M&E processes. This includes data collection, consultations, impact evaluation, and benchmarking to assess socio-economic and environmental impacts, stakeholder feedback, and compare outcomes with best practices for informed policy adjustments

CHAPTER SEVEN: ANNEXES

7.1 Definition of Terms

- Agroecology:** Agroecology is an integrated approach that simultaneously applies ecological and social concepts and principles to the design and management of food and agricultural systems. Agroecological approaches use natural processes to optimize the interactions between plants, animals, humans and the environment while taking into consideration local and scientific knowledge and the social aspects that advocate for a sustainable and fair food system. Agroecology covers all ecosystems including agroecosystems, aquatic ecosystem (freshwater and marine), silviculture, terrestrial (forest ecosystem, savannah/grassland ecosystem), desert and tundra ecosystems. It incorporates a set of practices including organic agriculture, regenerative agriculture, permaculture, ecological agriculture, soil and water conservation and management, agroforestry and, integrated pest management
- Food System:** It encompasses the entire range of actors and their interlinked value-adding activities involved in the production, aggregation, processing, distribution, consumption and disposal of food products that originate from agriculture, forestry or fisheries, and parts of the broader economic, societal and natural environments in which they are embedded.
- Food System Transformation:** Food system transformation refers to the comprehensive reorganization of food production, distribution, and consumption to ensure food and nutrition security and environmental sustainability through agroecological approaches.
- Healthy and safe diet:** This is a diet that consists of adequate intake of fruits, vegetables, legumes and clean drinking water; reduced intake of free sugars and fats; and food that is not contaminated with potentially harmful bacteria, parasites, viruses, toxins and chemicals.

Vulnerable groups:

Vulnerable groups in society are those segments of the population that are more likely to suffer from disadvantages, marginalization, or discrimination due to various socioeconomic, physical, or psychological factors. Vulnerable groups within society, including women, older members of society, persons with disabilities, children, youth, members of minority or marginalized communities, and members of particular ethnic, religious or cultural communities.

Producers:

Actors responsible for planting, cultivating and harvesting of crops and trees or rearing livestock and fisheries to produce food and other non-food products.

Productive resources:

These are the factors of production used to produce goods and services and includes in natural resources, labour, capital and entrepreneurship.

Value chain actors:

These are food system actors involved in producing, processing, distributing, marketing, retailing, and consuming food. They include input suppliers, producers, processors, distributors/wholesalers, retailers and consumers.

7.2 References

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Annex III: Members of the Core Team on the Development of Makueni Agroecology Policy

S/NO	NAME	ORGANISATION
1	Joyce Mutua	Immediate former - CECM Department of Agriculture, Livestock, Fisheries and Cooperative Development
2	Dr. Victoria K Kyallo	Chief officer Agriculture
3	Japheth Kiminza	Chief Officer Livestock, Fisheries and Cooperative Development
4	Mary Muteti	Director Agriculture
5	Esther Kivindyo	Director Administration, DALFCD
6	Dr. Josephat Mbai	Director Veterinary Services
7	David Musyoki	Director Livestock and Fisheries Development
8	Munene Mwiindi	Director Cooperatives
9	Martin M. Munyao	Value Chain Development Specialist, DALFCD
10	Njeru Runji	Legal Officer
11	Anne Maina	Biodiversity and Biosafety Association- Kenya (BIBA-K)
12	Janet Ndiki	Biodiversity and Biosafety Association- Kenya (BIBA-K)
13	Mary Irungu	Participatory Ecological Land Use Management (PELUM) Kenya
14	Sarah Wambui	Participatory Ecological Land Use Management (PELUM) Kenya
15	Anne Njuguna	Solidaridad
16	Valentine Maina	Volunteer Services Overseas (VSO)
17	Juma Mohammed	Intersectoral Forum on Agro biodiversity and Agro ecology (ISFAA)
18	Shadrack Kasonzo	Cereal Growers Association (CGA)
19	Robert Muli	Makueni Development Trust (MADET)
20	Sellah Tumbo	ActionAid
21	Vinny Bhatt	VEDA Organics
22	Christine Mutisya	ENVIU
23	Joseph Munyao	Deputy Director, Environment
24	Ruth Kaloki	Health Services, Nutrition Coordinator
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