



COUNTY GOVERNMENT OF THARAKA-NITHI

DEPARTMENT OF AGRICULTURE AND LIVESTOCK

AGROECOLOGY POLICY

2024

FOREWORD



Globally, conventional agriculture, heavily reliant on chemical inputs and monoculture, has been the dominant agricultural paradigm. While it has increased food production, it has also led to severe environmental degradation, including soil erosion, water pollution, and greenhouse gas emissions.

These practices have significant implications for public health and climate change.

In Kenya, the promotion of conventional agriculture through subsidized fertilizers has exacerbated these issues, leading to deforestation, water scarcity, and soil infertility. The alarming rise in non-communicable diseases, particularly cancers, linked to pesticide exposure highlights the urgent need for a more sustainable approach.

The United Nations Environment Assembly has recognized the critical importance of biodiversity conservation and land restoration. In line with this global call, Tharaka Nithi County aims to transition towards Agroecology, a holistic approach to farming that prioritizes ecological balance, social justice, and economic viability.

Agroecology offers a promising solution to the challenges posed by conventional agriculture. By harnessing nature's processes, it can increase agricultural productivity, improve soil health, conserve water, and reduce greenhouse gas emissions. Moreover, it can enhance food security, improve rural livelihoods, and protect biodiversity.

To achieve this vision, this policy outlines a framework for the implementation of Agroecology in Tharaka Nithi County. It addresses key challenges such as awareness-raising, capacity building, and policy and institutional reforms. By embracing Agroecology, the county can create a more sustainable, resilient, and equitable future for its people and the planet.

H.E. MUTHOMI NJUKI, E.G.H.

GOVERNOR

COUNTY GOVERNMENT OF THARAKA NITHI

PREFACE



The agricultural sector is the backbone of the Tharaka Nithi County economy, providing sustenance and livelihoods for a significant portion of its population. However, the sector faces numerous challenges that hinder its potential, such as land degradation, soil erosion, water scarcity, and climate change.

To address these challenges and ensure a sustainable future for agriculture in Tharaka Nithi County, the development of a comprehensive Agroecology Policy has become imperative. This policy aims to promote sustainable agricultural practices that enhance food security, environmental conservation, and rural development.

By adopting agro ecological principles, we can optimize the use of natural resources, reduce reliance on harmful chemical inputs, and increase the resilience of our farming systems. This policy framework provides a roadmap for transitioning to a more sustainable and equitable agricultural system that benefits both the environment and the community.

I extend my sincere gratitude to all the stakeholders, including government officials, farmers, researchers, and civil society organizations, who have contributed to the development of this policy. Their collective efforts and expertise have been invaluable in shaping this document.

I urge all stakeholders to embrace the principles and guidelines outlined in this policy and work together to implement them effectively. By doing so, we can create a thriving agricultural sector that supports the well-being of our communities and protects our environment for future generations.

NJUE NJAGI KAITHUNGU

COUNTY EXECUTIVE COMMITTEE MEMBER

AGRICULTURE, LIVESTOCK AND FISHERIES DEVELOPMENT

THARAKA NITHI COUNTY

ACKNOWLEDGMENT



The County Government of Tharaka Nithi extends its sincere gratitude to the following organizations and individuals for their invaluable contributions to the development of this Agro-Ecological Policy: Bio vision Foundation for Ecological Development; Caritas Meru; Kenya University and Bill & Melinda Gates Foundation.

We are particularly grateful to the dedicated members of the technical taskforce, comprising representatives from the: County Assembly of Tharaka Nithi, County Executive Department of Agriculture, Caritas Meru and Office of the County Attorney.

The expertise and tireless efforts of the technical consultant were instrumental in shaping this policy. We also acknowledge the insightful contributions of experts from various organizations who participated in the policy development process.

Thank you all for your support and commitment to sustainable agriculture and environmental conservation in Tharaka Nithi County. Efforts of the technical consultant are greatly appreciated.

Finally, we acknowledge the input from experts from various organizations who were involved in one way or the other during this policy development process.

PETER KIMATHI NJERU
COUNTY CHIEF OFFICER
AGRICULTURE, LIVESTOCK & FISHERIES DEVELOPMENT
THARAKA NITHI COUNTY

TABLE OF CONTENTS

Foreword	ii
Acknowledgment	iv
Definition of Terms	vi
Acronyms	vii
CHAPTER 1.	1
1.1. Background	1
1.2 Rationale of the policy	2
CHAPTER 2: SITUATIONAL ANALYSIS	4
2.1. General overview	4
2.2 Legal, Regulatory and Institutional Arrangement	4
2.2.1. Legal and Regulatory Framework	4
2.2.2 Institutional Arrangements	8
2.2.3. Linkages	8
CHAPTER 3: POLICY GOAL AND OBJECTIVE	10
3.1 Policy Vision:	10
3.2 Policy Mission	10
3.3 Guiding Principles	10
3.4 Policy Goal	11
3.5 Scope of the Policy	11
3.6 Policy Development Process	11
CHAPTER 4: POLICY OBJECTIVES AND STRATEGIES	12
Policy objective 1: To strengthen the policy, legal and regulatory framework for Agroecology	12
Policy Objective 2: Establish effective strategies for restoration and maintenance of Agroecology	12
Policy objective 3: Facilitate widespread public awareness, education, participation, ownership and oversight of Agroecology response efforts and action plans	13
Policy objective 4: Enhance research and use of science and technology in policy decisions and sustainable management of resources in Agroecology	14
Policy objective 5: To provide a framework to mobilize resources for agro ecology practices and ensure effective and transparent utilization of the resources	15
Policy objective 6: Institutional framework for enhanced coordination and collaboration amongst relevant stakeholders and sectors	15

Policy objective 7: To incorporate Agroecology as a tool to climate change mitigation and adaptation.	16
CHAPTER 5: IMPLEMENTATION FRAMEWORK	17
5.1 Implementation Matrix	17
CHAPTER: 6: MONITORING AND EVALUATION	22
APPENDIX	23

DEFINITION OF TERMS

Agroecology: is the application of ecological concepts and principles to the design and management of sustainable food systems

Climate change: A change of climate which is attributed directly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.

Conventional Agriculture: farming systems which involve the use of synthetic chemical fertilizers, pesticides, herbicides and other continual inputs, genetically modified organisms, Concentrated Animal Feeding Operations, heavy irrigation, intensive tillage and concentrated monoculture production

Sustainable development: Development that meets the needs of the present without compromising the ability of the future generations to meet their own needs.

Resilience: The ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions.

ACRONYMS

ALF	Agriculture, Livestock and Fisheries
ASALs	Arid and Semi-Arid Lands
CECM	County Executive Committee Member
CO	Chief Officer
ELUM	Ecological Land Use Management
FAO	Food and Agriculture Organization of the United Nations
GDP	Gross Domestic Product
GHG	Green House Gases
IPM	Integrated Pest Management
M & E	Monitoring and Evaluation
NEMA	National Environmental Management Authority
PHI	Post Harvest Interval
SDGs	Sustainable Development Goals

CHAPTER 1.

1.1. Background

Introduction

About 16.1% of Kenya's estimated 53 million people live below the international poverty line. Economic performance of a country has a direct bearing on people, the environment, food and nutrition security. Kenya's economy is highly dependent on the agriculture sector, contributing 33 per cent of the Gross Domestic Product (GDP) and another 27 per cent of GDP indirectly through linkages with other sectors. The sector employs more than 40 per cent of the total population and more than 70 per cent of Kenya's rural people.

In Tharaka Nithi County, Agriculture forms the basis of food production and significantly contributes to growth of the county's economy. The agriculture sector contributes 34% of the Gross County Product (GCP) as per the GCP 2021 report. According to the Global Hunger Index 2019, the country still has "serious levels of hunger" with a score of 25.2 and a ranking of 86 out of 117 countries.

To maximize production and productivity and address food and nutrition security, conventional agriculture has been promoted in the Country since independence in 1963. However, conventional agriculture is associated with many challenges including declining biodiversity, Greenhouse Gases (GHG) emission, diminishing water resources, food insecurity, water pollution, soil erosion, disregard of indigenous knowledge, total dependence on external inputs, among others.

Agrochemicals used in conventional agriculture especially pesticides and herbicides have strongly been linked to different forms of cancer, especially breast cancer and prostate cancer. The increasing misuse of pesticides and herbicides in farming results in higher than the allowed maximum residue levels (MRLs) in foods for human consumption with disastrous consequences to both human health and environmental health. There is

evidence of the rising contamination arising from agricultural and food production activities especially pesticide and herbicide.

Due to this, there has been an explosive local, national and global interest in search for more sustainable ways of producing food. Agroecology, which is the application of ecological concepts and principles to the design and management of sustainable food systems, has been suggested by the FAO and other organizations as a better alternative to conventional agriculture. Agroecology optimizes and maintains biodiversity above and below ground and views crop fields as an ecosystem in which ecological processes take place and tries to understand those integrations with an aim of increasing productivity. It is a farming system focusing not only on production but also on environmental and social sustainability of the agro ecosystem.

There are ten elements of Agroecology which include:

- efficiency
- synergies
- recycling
- diversity
- resilience
- circular and solidarity economy
- culture and food traditions;
- co-creation and sharing of knowledge
- human and social values, and
- responsible governance.

These elements act as a guide in adoption and scaling up agro ecological agriculture. Agroecology has demonstrated the potential to: increase productivity, biodiversity; revitalize degraded soils; improve health and nutrition; enhance resilience and cohesion in communities, while addressing climate change. In recognition of the importance of

Agroecology as a better alternative to industrial agriculture, the second symposium on Agroecology held in Rome on April 2018 launched a scaling up of Agroecology initiative, marking a shift in focus from dialogue to implementation¹

In Kenya, adoption and scaling up of Agroecology is yet to be effected and the few Agroecology projects in Kenya and especially in Tharaka Nithi County are sporadic and small scale. During a high level workshop organized in London by International Institute for Environment and Development (IIED) and Practical Action in October 2015 pinpointed eight major challenges to scaling up Agroecology which includes: its negative image in the eyes of some donors, governments, researchers and farmers; time delay before the benefits of agro ecological systems are realized; weak knowledge and advisory systems; high labor demand of many sustainable agricultural practices; high transaction costs; incongruence with key National Government priorities and political interests; lack of mechanisms for landscape level coordination, and inappropriate incentive systems in research.

A series of meetings held with various stakeholders (farmers, Agroecology Alliance organizations and policy makers) within Tharaka Nithi County confirmed the aforementioned challenges and agreed on the need to develop an Agroecology policy.

Agriculture in the County

The County is broadly categorized into three agricultural zones; high rainfall areas, midlands and the ASALs. The ASALs make up about 70% of the total county area. However, its production is low and contributes about 30% of the total production area. The main crops grown in ASAL areas are sorghum, millet, green grams, cowpeas, pigeon peas, dolichols lablab, cassava and sweet potatoes. Cotton is also being revitalized in this area and has good potential. The middle land has high potential for maize, beans, African

¹ <http://www.fao.org/3/I9049EN/i9049en.pdf>

leafy vegetables and cowpeas. Production of mangoes is prominent in these areas. The high rainfall area is suitable for tea, coffee, macadamia, bananas and avocados. Horticulture farming under irrigation cuts across all the Agro ecological zones (AEZ). The main horticultural crops in the irrigation schemes are bananas, kales, spinach, African leafy vegetables, tomatoes, yellow passion and capsicums.

The rainfall distribution is bimodal; with March/April/May rains being long rains and October/November/December season being short rains. In the county rainfall is more reliable in the October/November/December season. The effect of climate change has resulted in declining amounts of rainfall which is poorly distributed, high temperatures and prolonged droughts. This has led to poor crop and livestock production and productivity.

1.2 Rationale of the policy

According to the Tharaka Nithi County Integrated Development Plan (CIDP) 2023 -2027 the County's vision is *"A Prosperous, Industrialized and Cohesive County"* while the mission is *"to enhance sustainable socio-economic growth and optimal utilization of resources"*.

This clearly understates the Tharaka Nithi County Government's willingness to adopt safer and sustainable agricultural production systems. Currently, conventional agriculture is associated with many challenges which include; high cost of inputs, markets for produce, deforestation, water pollution, loss of biodiversity, food and nutrition security. Inputs used in agroecology may be broadly classified as seeds; growth enhancers; pests and disease management products and animal feeds. Plant growth enhancers are; farmyard manure, compost, nitrogen-fixing bacteria, and natural rock phosphate. These are often locally available at low cost, and often farmers utilize indigenous knowledge in their application. There is a limited number of bio fertilizers being produced locally. Standards for organic fertilizers exist, however there is inadequate awareness on these standards among the users. Therefore, the enforcement of these standards may be weak.

Inputs used for pests and disease management range from mixtures to well researched and formulated products. Formulated biological inputs are expensive and not easily accessible in the supply chain. Farmers make their own plant extracts and also use processed products like pyrethrum, neem, copper and sulfur compounds.

In commercial aquaculture, organic inputs include the use of water fleas (*Daphnia* spp), phytoplankton and maggots to enhance growth at the fingerling stage of the fish. This is done mainly in hatcheries for fingerling production. Nonetheless, in organic animal husbandry, commercial organic feeds are not readily available and accessible.

Organic marketing and trade, operate within a guaranteed system. The system involves strict adherence to the relevant organic standard, inspection, and certification. The resultant organic product requires a certification mark that informs the consumer that the organic production processes including processing has been complied with.

Demand for organic products has been on the increase for the last few years as a result of increased incomes, awareness, improved access to products and health concerns (KOAN, 2016). Despite this increase, the market share is less than 1% compared to the conventional market (UNCTAD, 2007). Organic products fetch better prices compared to conventional products in the local and international market. Price premiums range between 15 to 300 percent depending on the product and level of value addition. The destinations of the organic products are international, regional and domestic markets.

The most important destinations are the European Union, United States of America and Japan. The main products exported are vegetables, salad pre-packs, herbs, nuts, avocado, coffee, tea, essential and cold-pressed oils.

Regional market comprises members of the East Africa Community (EAC). The main products traded are dried fruits, horticultural crops, herbal teas, honey and coffee. To facilitate regional trade, the East African Organic Products Standard and the East African Organic Mark were developed in 2007.

At national level, organic products are currently sold in emerging niche markets. The market outlets include supermarket chains, specialized organic shops, organic restaurants, organic farmers' open markets and basket delivery schemes to consumers' homes or workplaces. The main products include horticultural products, nuts, herbal teas, coffee, tea, fish, livestock products and by-products. However, limitations exist for other value chain actors for example processors due to inadequate supply of organic additives. Imported products include processing aids and additives, health products and herbal teas.

The increasing incidences of cancer in Tharaka Nithi County have been associated with intensified use of agro chemicals and therefore a need for paradigm shift from conventional agriculture to Agroecology. Agroecology presents an opportunity for a sustainable agricultural system. The Kenya climate smart agriculture 2017-2026 strategy whose main objective is to build resilience and minimize emissions from agricultural farming systems for enhanced food and nutritional security as well as improved livelihoods directly supports agroecology. This is in line with the policy goal which is to ensure a more environmentally and socially sensitive approach to agriculture focusing not only production but also ecological sustainability of the production system. There are prevailing favorable factors for the need of this policy. There are existing organizations in the County that are already promoting agro ecological farming methods which need policy backing and capacity building.

CHAPTER 2: SITUATIONAL ANALYSIS

2.1. General overview and trends

Agroecology is gaining recognition for its potential to address climate change, biodiversity loss and malnutrition. However, it lacks policy back up in many parts of the world. Scientific knowledge of Agroecology is rapidly increasing, and organizations of food producers and civil society hold significant practical, traditional and local Agro Ecological knowledge. Agroecology presents an opportunity to farmers, researchers, policy makers and consumers for looking at agriculture with diversified lenses beyond productivity.

Agro ecological farming systems are increasingly seen to have the potential to meet the triple challenges of production and productivity, sustainability and poverty eradication. Towards this several actions have taken place globally, nationally and at the county level towards embracing Agroecology.

There are several global and national legal statutes that give an opportunity for adoption of Agroecology.

2.2 Legal, Regulatory and Institutional Arrangement

2.2.1. Legal and Regulatory Framework

Globally there are several treaties and conventions supporting Agroecology. These include:

The Maputo Declaration on Agriculture and Food Security in Africa; The Rio Declaration on Environment and Development; Convention on Biological Diversity; The African Convention on the Conservation of Nature and Natural Resources (1968); The Stockholm Convention on Persistent Organic Pollutants.

In Kenya the following policies and acts provide support for safe and environmentally sound food production: The Environment and Development Policy; The National Climatic Change Strategy; The Biosafety Act, Number 2 of 2009; The National Policy on Water Resources Management and Development and the National Food and Nutritional Security Policy.

In Tharaka Nithi, the following legal frameworks exist and are in support of sustainable production. These are; the Climate Change policy 2019, the Climate Change Fund Act of 2020, the Agriculture Policy of 2022 and the Tea Act 2021. Below is a table giving a summary of conventions, policies, policy statements and acts that provide an opportunity for development of a policy and adoption of Agroecology.

INTERNATIONAL CONVENTIONS AND TREATIES	
Conventions/treaties	Brief description
Sustainable Development Goals	These goals are set by the United Nations to transform the world into a better place. Goal number 12, 13 and 15 on sustainable production and consumption, climate action, and biodiversity, forests and desertification respectively give directions on key actions to make the world a better place.
The Maputo Declaration on Agriculture and Food Security in Africa	A policy direction was made by Heads of States and Governments of the African Union (AU) in 2003 to implement the CAADP and to adopt sound policies for agricultural and rural development, and committed governments of the parties to allocate at least 10% of national budgetary resources for implementing the policies within five years.
The Rio Declaration on Environment and Development	Treaty under the auspices of the United Nations through which the parties affirm that sustainable development is centered on human beings who are “entitled to a healthy and productive life in harmony with nature” and that development has to equitably “meet the developmental and environmental needs of the present and future generations”.
Convention on Biological Diversity	This treaty which is under the auspices of the United Nations Organization requires the parties to conserve biodiversity, sustainably and equitably use its components which include genetic resources and products of safe biotechnology.
The Stockholm Convention on	This is a treaty under the auspices of the United Nations that has the objective of protecting public health and the environment from persistent organic pollutants. It obligated

Persistent Organic Pollutants	the parties to prohibit and/or take legal administrative measures to eliminate the production, imports and exports of specified chemicals including Dieldrin, Ndrin, and Biphenyls (PCB), and also restrict such chemicals such as DDT and Dicofol.
The African Convention on the Conservation of Nature and Natural Resources (1968)	This is a treaty that under the auspices of the African Union which obligated parties to it to “undertake to adopt the measures to ensure conservation, utilization and development of soil, water, flora and faunal resources in accordance with scientific principles and with due regard to the best interests of the people”
NATIONAL POLICIES, ACTS OR STRATEGIES PROVIDING AN OPPORTUNITY FOR ADOPTION OF AGROECOLOGY	
Policy/Act/Strategy	Brief Description
The Kenya’s vision 2030	Kenya Vision 2030 is the country’s development blueprint covering the period 2008 to 2030. It aims to transform Kenya into a newly industrializing, “middle-income country providing a high quality life to all its citizens by the year 2030”.
The Environment and Development Policy	The Sessional Paper Number 6 of 1999 on Environment and Development Policy recognizes that environmental protection is a component of sustainable development. It seeks to achieve the conservation of natural resources including air, land, flora and fauna, the promotion of conservation of soil fertility, biodiversity, the fostering of afforestation, and the protection of catchment areas. National Climatic Change Strategy
The National Climate Change Response Strategy April 2010	The Strategy sets out to reduce the vulnerability to impacts of climatic change and to catalyze transition to cleaner, lower remission and less carbon-intensive development in the country. The Government commits in the Strategy to enhance climate resilience and adaptive capacity and put in place mechanisms for sustainable utilization of natural resources. The Strategy directs integration of climate change risk and vulnerability assessment in the Environment Impact Assessment and the Strategic Environment Assessment 2.2.9.1 Legislation on Biotechnology Policy

The Biosafety Act, Number 2 of 2009	This is an instrument of implementing the Policy. The Act sets out to facilitate research in biotechnology and protect humans and the environment from adverse effects of products of biotechnology. It prohibits in section 18-22 any person from conducting any activity with or introducing into Kenya genetically-modified organisms (GMO) without the authority of the Biosafety Authority.
The National Policy on Water Resources Management and Development	The Sessional Paper Number 1 of 1999 on the National Policy on Water Resources Management and Development provides the direction for availing adequate water for domestic, industrial and commercial uses. It aims at achieving sustainable development and management of the water sector. It integrates Ecological Land Use Management, principles and practices in its objective of preserving, conservation and protecting the available water resources and allocating it in a sustainable, rational and economic way.
National Agriculture Policy 2021	The Policy affirms the interrelationship between food and health together with insecurity levels that have a definite bearing on personal and national security. In this regard, it emphasizes on the need for National and County Governments to commit adequate resources to enable sustainable production of sufficient and diverse nutrient dense foods
The National Food and Nutritional Security Policy	The Sessional Paper Number 1 of 2012 on the National Food and Nutritional Security Policy aims at achieving safe food in sufficient quantity and quality to satisfy the nutritional needs for optimal growth. It also aims at providing accessible and affordable food and protects vulnerable populations by using innovative and cost-effective safety nets linked to long-term development. It addresses associated issues of chronic, poverty-based food insecurity and malnutrition, as well as the perpetuity of acute food insecurity and malnutrition associated frequent recurrent emergencies
County Legal Frameworks	

Tharaka Nithi County Agriculture Policy 2022	Provides measures towards sustainable use of natural resources, particularly land and water, which are expected to boost agricultural production. Climate change mitigation and resilience building are part of the adaptable food and nutrition security strategies envisioned in this policy.
Climate Change Policy 2019	This Policy establishes an effective, accountable and transparent framework to facilitate a coordinated, coherent and effective response to the Tharaka Nithi county challenges and opportunities presented by climate change. This Policy therefore aims to enhance adaptive capacity and build resilience to climate variability and change, while promoting a low carbon development pathway.

The Kenyan Constitution in article 42 states inter alia that, Every person has the right to a clean and healthy environment, which includes the right--

- (a) to have the environment protected for the benefit of present and future generations through legislative and other measures, particularly those contemplated in Article 69; and
- (b) to have obligations relating to the environment fulfilled under Article 70.

The focus of this policy will be harmonizing the roles of various institutions and stakeholders, reviewing statutes governing the agriculture sector to ensure they are in tandem with the needs of the agricultural industry, strengthening Agroecology principles and enforcing the legal requirements. Chapter Five article 60 (1 and 2) of the constitution of Kenya on Land and Environment states inter alia that Land in Kenya shall be held, used and managed in a manner that is equitable, efficient, productive and sustainable, and in accordance with the following principles--

- (a) equitable access to land;
- (b) security of land rights;
- (c) sustainable and productive management of land resources;
- (d) transparent and cost effective administration of land;
- (e) sound conservation and protection of ecologically sensitive areas;
- (f) elimination of gender discrimination in law, customs and practices related to land and property in land; and
- (g) encouragement of communities to settle land disputes through recognised local community initiatives consistent with this Constitution.

(2) These principles shall be implemented through a national land policy developed and reviewed regularly by the national government and through legislation.

This agroecology policy will therefore be anchored on the above constitutional provisions and other relevant legislations.

2.2.2 Institutional Arrangements

The existing Public and private institutions do not implement Agroecology principles in totality harmoniously. Over time due to dynamic market requirements and climate change, the department of Agriculture in partnership with development partners have been promoting some aspects of Agroecology. Private institutions are based on voluntary membership and focus on self-regulation and advocacy. To ensure success in promoting Agroecology in Tharaka Nithi County there is need for more research, multi-sectoral collaboration, lobbying and advocacy, and strengthening of existing institutions. The county government also need to put in place measures to ensure that an Agroecology extension curriculum is in place.

2.2.3. Linkages

- i. The Ministry of Agriculture, Livestock, Fisheries and cooperatives at the national level is the lead agent in agricultural transformation in the country. The ministry provides the overall policy, regulation and operational direction. At the County level, the department of Agriculture, Livestock and Fisheries has the mandate of developing this policy in reference to related national policies such as climate change policy, the Kenya climate smart agriculture strategy(2017-2026), food and nutrition security policy, food safety policy, agricultural sector transformation strategy, biosafety act, national agriculture sector extension policy, environment and development policy.
- ii. Other ministries, departments and agencies whose mandate directly impact on agro-ecology include: water and Irrigation, Environment and Natural Resources, Public Health and Sanitation, Trade and Industrialization (refer to annex for related agencies)
- iii. The Ministry of Agriculture, Livestock and Fisheries in liaison with Educational and Research Institutions and state and non-state actors to develop the Agroecology extension curriculum and ensure its implementation.
- iv. The County Government of Tharaka Nithi. The County endeavors to develop a policy position in agro ecology through the standard process involving all stakeholders. The County commits to engage as many stakeholders as possible to get consensus on the draft document and shall use it to give direction and promote agro ecology within the County.
- v. Kenya Agriculture and Livestock Organization (KARLO) Research and development is core to growth of any sector. KARLO holds the national mandate in agriculture research. KARLO shall be engaged in the agro ecology policy development process and in development of key innovations in the sectors.
- vi. The Kenya Organic Agriculture Network (KOAN) is the national co coordinating body for organic agriculture practices in Kenya. KOAN emerged from a consultative process where organic practitioners agreed to come together to

achieve the synergy required to develop the organic sub sector. KOAN has also played a key role in the draft national organic agriculture policy so far. Tharaka Nithi County agro ecology policy framework will recognize the role to be played by KOAN in mobilization of stakeholders.

- vii.** Over the years, Organic Agriculture has had little support in Tharaka Nithi. Although there are few farmers from the information gathered from data available from the KOAN, none are actually certified as organic farmers or input suppliers. The practicing farmers will be actively involved in determining the pathway in this County policy development process. The County Government will also work to expand the list of practitioners through the available contacts and introduce the agro ecology concepts to all.
- viii.** Accredited organic certifying bodies - At least three to four certifying bodies in Kenya have been documented so far from information available. The include e Cert, En Cert and Nesvax and control union (CU). These certifying bodies among others will be deeply engaged not just in the agro ecology policy development process but for the proposed producer certification through County Government support. A working collaboration will be established for the local and export market. Local organic agriculture markets will be established through the supermarkets. Export market linkages through exporters will be pursued.
- ix.** The local civil society organizations and faith organizations will be engaged in creating awareness on the policy, production systems and marketing of the organic produce as per the developed extension curriculum.

CHAPTER 3: POLICY GOAL AND OBJECTIVE

3.1 Policy Vision:

The vision of this policy is to promote sustainable agriculture that ensures food security and nutrition, secure livelihoods, a healthy environment and contribute to the County Development Goals

3.2 Policy Mission

To facilitate and promote agroecology practices and principles for sustainable agricultural production through diversification, environmental conservation, landscape restoration and reclaiming cultural food traditions.

3.3 Guiding Principles

The following principles of Agroecology will be adopted during policy implementation:

1. **Diversity:** Diversity increases productivity and environmental stability by promoting polyculture instead of monocultures
2. **Recycling:** Recycling is a means of lower economic and environmental costs while enhancing agricultural production
3. **Efficiency:** Agro ecological practices aim to produce minimal waste
4. **Resilience:** Agroecology enhances resilience of the people, communities and ecosystems
5. **Synergies:** Building synergies enhances key functions across food systems, supporting production and multiple ecosystem services
6. **Co-creation and sharing of knowledge:** Agricultural innovations respond better to local challenges when they are co-created through participatory processes of all actors
7. **Culture and food traditions:** By supporting healthy, diversified and culturally appropriate diets, Agroecology contributes to food security and nutrition while maintaining health of ecosystems

8. **Human and social values:** Protecting and improving community livelihoods, equity and social well-being is essential for sustainable agro ecosystems
9. **Responsible governance:** Agroecology requires responsible and effective governance and management mechanisms at different scales – from local: national and global
10. **Circular and solidarity economy:** Circular and solidarity economies that reconnect producers and consumers; provide innovative solutions for living within planetary boundaries while ensuring the social foundation for an inclusive and sustainable environment.

3.4 Policy Goal

This policy endeavors to provide a framework for implementation of Agroecology as an agricultural system leading to food security, safety and sovereignty; social, cultural and economic empowerment as well as environmental sustainability

3.5 Scope of the Policy

The policy aims to provide guidelines on implementation of Agroecology within Tharaka Nithi County

3.6 Policy Development Process

The County Government of Tharaka Nithi has collaborated with Caritas Meru and Biovision Foundation for Ecological Development for the last two years on Agroecology. The collaboration has culminated in the development of the Agroecology policy.

A meeting was held between the County Agriculture, Livestock and Fisheries (ALF) executive and the assembly committee facilitated by the Biovision Foundation for Ecological Development convened by Caritas Meru. Thereafter, mapping of all organizations practicing and promoting Agroecology was done. These organizations met and formed an alliance. An induction was carried out on Agroecology to level the understanding. (List of attendees at appendix). After the training, the alliance, the county

executive and assembly members embarked on a learning tour to Laikipia Permaculture Centre. (See appendix for those who attended). A second comprehensive training targeting the County Assembly Agriculture committee. The training was graced by the County Executive Committee Member (CECM) for ALF. The ALF committee members found it necessary to support the development, approval and implementation of the policy. Lastly, CECM formed a taskforce that worked on this policy facilitated by an Agroecology expert consultant.

CHAPTER 4: POLICY OBJECTIVES AND STRATEGIES

For effective intervention measures, the policy will pursue six objectives aimed at addressing the identified problems. This chapter outlines the six objectives with the accompanying strategies and policy direction.

Policy objectives and Strategies

Policy objective 1: To strengthen the policy, legal and regulatory framework for Agroecology

One of the major challenges in promoting Agroecology is inadequate policy and legal framework governing agricultural activities in relation to the ecosystem. This has led to poor agricultural practices leading to poor livelihoods, loss of biodiversity and land degradation, among others

Policy direction

The County Government of Tharaka Nithi shall establish a robust policy, legislative and regulatory framework to support establishment of Agroecological systems.

Strategies

- i) Review the existing frameworks related to Agroecology
- ii) Develop, gazette and operationalize necessary acts and regulations supporting Agroecology

Commented [HVZ1]: It makes for this to be the first policy objective as it is an extremely important overarching objective that other depend on.

Commented [HVZ2]: Here are a couple thoughts:

1) You might consider a review of existing frameworks that goes beyond those that relate only to agroecology and agriculture. Of particular importance would be reviewing the policies, regulations, rules, the enforcement of all of these, and administrative procedures that make up the **business environment**. We have learned time and again that the business require a better enabling environment to succeed and grow. This applies to producers, processors, retailers, input providers, etc... Therefore, it might be worthwhile for a strategic objective here to be an analysis of business environment challenges faced by actors at different stages of the value chain, which would inform the review of existing frameworks.

2) It could be interesting to have an **explicit focus on the county's provision of goods and services**, e.g. its fertilizer subsidy programme. We've learned that Kakamega has a mandate to provide subsidized organic fertilizers, however, most farmers are unaware and therefore don't request it. Could there be a similar situation in Tharaka Nithi?

- iii) Streamline climate change adaptation in agricultural development programs and policies that include Agroecology

Policy Objective 2: Mainstream climate change adaptation in agricultural development programs and policies

Unsustainable agricultural practices have over the years led to degradation of ecology, loss of biodiversity, and depletion of natural resources leading to poor agricultural production, subsequent food insecurity and poor livelihoods. In addition, these practices have led to breakdown of social fabrics. To create a resilient agricultural production system, the application of Agro ecological principles is critical.

Policy direction

The County Government of Tharaka Nithi shall put in place strategies necessary for developing sustainable agricultural programmes that are environmentally friendly, highly productive, socially equitable and economically viable.

Strategies

- i. Establishment of community committees to manage landscape restoration, rehabilitation and sustainability of identified degraded Agro Ecological hotspots
- ii. Support and promote agroforestry, afforestation, reforestation, reseedling, gully treatments, and water conservation and management structures to reclaim degraded lands and enhance livelihood systems and environmental resources
- iii. Promote nutrient-rich foods through increased production, diversification and bio-fortification
- iv. Promote and support conservation and protection of watersheds and water bodies.
- v. Promote sustainable irrigation and efficient water management systems.

- vi. Promote measures that reduce cost of agricultural production through strengthening farmers' managed seed system, adoption of organic fertilizers and bio-pesticides among others
- vii. Promotion of sustainable food production systems with emphasis on agro ecological farming practices including holistic land and livestock management system
- viii. Promote and support circular and solidarity economies through cooperative systems, rural out growers' schemes and fair-trade policies to increase the economic value of small-scale Agro Ecological producers.
- ix. Create awareness on the recommended Post Harvest Interval (PHI) and maximum residue levels and the general safety in the use of pesticides and herbicides and facilitate implementation of laws governing use of pesticides

Policy objective 3: Facilitate public awareness, education, participation, ownership and oversight of Agroecology response efforts and action plans

Agroecology is an all-inclusive approach that requires the participation of farmers and other stakeholders for a sustainable outcome. Creation of awareness, building capacities and promotion of dialogue is key in ensuring inclusivity and participation.

Policy direction

The County Government of Tharaka Nithi shall create public awareness and build capacities on Agroecology

Strategies

- i. Develop Agro Ecological training curriculum for service providers
- ii. Build the capacities of stakeholders on Agroecology to enhance extension capacity
- iii. Develop radio programs and mass messaging apps for widespread public awareness
- iv. Conduct participatory rural appraisal to establish and document the use of indigenous knowledge, agrobiodiversity and local resources.

- v. Develop and disseminate simplified Agroecology information, education and communication materials for the public
- vi. Set up Agroecology demonstration and trial farms
- vii. Strengthen the existing Agriculture Training Institute on Agroecological components.

Policy objective 4: Enhance research and use of science and technology in policy decisions and sustainable management of resources in Agroecology

In addition to the social aspect of Agroecology, it is also a science focusing on the integration of ecological concepts, cycles and processes and the interaction between the components of the system. Agroecology thus combines technical solutions, restoring harmony between productivity, reducing pressure on the environment and sustainable management of resources for effective agro ecological technical solutions therefore, investing in research and use of science and technology will provide sound and scientifically based solutions.

Policy direction

The County Government of Tharaka Nithi shall promote creation of farmer-researcher synergies that will co-create knowledge for suitability of Agroecology

Strategies

- i. Mainstream agro ecological research, innovation/technology transfer and adoption of appropriate agro ecological practices in the county integrated development plans (CIDPs) and Annual Development plans (ADPs)
- ii. Document practical indigenous technical knowledge on Agroecology and sustainable food systems
- iii. Promote farmer demand driven research in agroecology. (to address pertinent real issues from the communities)

- iv. Establish farmer resource centers as technology transfer units and community learning centers.
- v. Strengthen linkages between research and training institutions with extension service providers including other agro ecological centers.

Policy objective 5: To provide a framework to mobilize resources for Agroecology practices and ensure effective and transparent utilization of the resources

Generally, agriculture funding in Kenya is low, with funding for Agroecology research even lower. As such, strategies for funding Agroecology in Tharaka Nithi County are critical.

Policy direction

The County Government of Tharaka Nithi Shall provide a framework for resource mobilization

Strategies

- i. Provide a framework to mobilize resources for agro ecology practices
- ii. Establish a Tharaka Nithi County Agroecology development fund
- iii. Create awareness on agro ecological opportunities for entrepreneurs to encourage investment.
- iv. Mainstream agroecology activities in County Integrated Development Plan (CIDP) and Annual Development plans (ADPs)

Policy objective 6: Institutional framework for enhanced coordination and collaboration amongst relevant stakeholders and actors.

Currently there is no existing platform for championing Agroecology issues in Tharaka Nithi County. This has led to uncoordinated interventions and lack of synergy as well as documentation. There is therefore a need form an Agroecology platform drawing membership from all actors and stakeholders in the agricultural and other related sectors.

Policy direction

The County Government of Tharaka Nithi shall facilitate the formation and coordination of a functional stakeholders' platform to promote Agroecology work in the work.

Strategies

- i. Map-out all stakeholders and actors in Agroecology in the County.
- ii. Facilitate the formation of agro ecological stakeholders' platform
- iii. Promote coordination and collaboration amongst relevant stakeholders and actors
- iv. Build the capacities of stakeholders, actors and civil society organizations on Agroecology to enhance extension capacity

Policy objective 7: To mainstream Agroecology in climate change mitigation and adaptation.

Agroecology activities mitigate climate change and make the practicing communities to be resilient to shocks and hazards of climate change. Therefore implementation of Agroecology in the county should be seen and promoted as a climate change mitigation strategy.

Policy direction:

The government shall facilitate the promotion of Agroecology as a climate change mitigation and adaptation tool.

Strategies

- i. Strengthen Community Forest Associations and Water Resource Users Association
- ii. Promote sustainable clean and green energy
- iii. Promote agroforestry
- iv. Promote nature based enterprises e.g apiculture, silk production, gum production

Policy objective 8: To develop, promote and enforce systems that ensure low cost inputs are available and accessible.

Inputs used in agroecology may be broadly classified as seeds; growth enhancers; pests and disease management products and animal feeds.

Plant growth enhancing inputs include farmyard manure, compost, nitrogen-fixing bacteria, and natural rock phosphate. These should be locally available at low cost, and information available and accessible on their utilization. There is a limited number of bio fertilizers being produced locally. Standards for organic fertilizers exist, however there is inadequate awareness on these standards and their enforcement.

Inputs used for pests and disease management should be well researched and formulated. Formulated biological inputs are expensive and not easily accessible in the supply chain. Farmers should be able to make their own bio-pesticides.

Policy direction.

The County government of Tharaka Nithi shall provide a framework to govern usage of inputs in agroecological systems.

Strategies

- i. Develop and enforce standards for commercial agroecological inputs.
- ii. Develop and promote an effective system for production and bulking of high-quality organic seeds and propagation materials.
- iii. Support Public Private Partnership initiatives to enhance investments in provision of affordable and agroecological quality inputs. This will create demand for farmers' agro-ecological produce and products.

Policy Objective 9: To develop and support viable markets and trade that create wealth for agroecology value chain actors.

Organic marketing and trade operate within a guaranteed system. The system involves strict adherence to the relevant organic standard, inspection, and certification. The

resultant organic product requires a certification mark that informs the consumer that the organic production process including processing has been complied with.

Demand for organic products has been on the increase for the last few years as a result of increased incomes, awareness, improved access to products and health concerns. Despite this increase, the market share is less than 1% compared to the conventional market. Organic products fetch better prices compared to conventional products in the local and international market. Price premiums range between 15 to 300 percent depending on the product and level of value addition. The destinations of the organic products are domestic, regional and international. However, limitations exist for other value chain actors for example processors due to inadequate supply of organic additives.

Policy Direction; The County government of Tharaka Nithi shall provide a conducive environment for a robust trade and market of Agroecological produce and products

Strategies;

1. Create awareness on agroecological produce and products and their benefits to human health and wealth creation.
2. Devise mechanisms to address the cost of inspection and certification.
3. Establish and promote Agro Ecological aggregation centers for collective marketing to ensure sustained supply for the market.
4. Develop marketing infrastructure for organic products to include market outlets, distribution systems and storage facilities.
5. Train and motivate the young entrepreneurs and other actors in the value chain to visualize huge opportunities in agroecology and hence embrace agroecology as a business.
6. Promote exhibitions, trade fairs and shows on agroecological produce, products and food.

CHAPTER 5: IMPLEMENTATION FRAMEWORK

The implementation of this policy will follow a sector approach with joint implementation amongst the actors within the Tharaka Nithi County. Institutions within Tharaka Nithi County practicing Agroecology will therefore form an alliance of

communities of practice and cascade the implementation to the ward based committees to be established within the proposed Agroecology governance framework.

5.1 Implementation Matrix

Objectives	Strategies	Indicators	Actors
To strengthen the policy, legal and regulatory framework for Agroecology	Review the existing frameworks related to Agroecology	-Number of review meetings. -Number of frameworks reviewed -A review report	-Dept. of ALF, Water, environment and natural resources, lands, physical planning, urban development and housing, public health, legal, County assembly, None state actors
	Develop, gazette and operationalize necessary acts and regulations supporting Agroecology	-Number of acts and regulations enacted -	-Dept. of ALF, Water, environment and natural resources, lands, physical planning, urban development and housing, public health, legal, County assembly, None state actors
	Streamline climate change adaptation in agricultural development programs and policies that include Agroecology	-Number of climate change adaptation practices being adopted.	-Farmers, Departments of ALF, Water, environment and natural resources, None state actors

2. Mainstream climate change adaptation in agricultural development programs and policies	Establishment of community committees to manage landscape restoration, rehabilitation and sustainability of identified degraded Agro Ecological hotspots	-Number of hotspots identified. -Number of community committees established to sustainably take care of degraded agro ecological hotspots -Number of rehabilitated hotspots -Number of rehabilitation and management plans in place.	-Community members, Dept. of ALF, Water, environment and natural resources, None state actors and NEMA, Kenya Forest Services, Sub-County and ward administrators, chiefs, Assistant chiefs and village leaders.
	Support and promote agroforestry, afforestation, reforestation, reseeding, gulley treatments, and water conservation and management structures to reclaim degraded lands and enhance livelihood systems and environmental resources	-Number of tree nurseries and trees planted. -Number of gulley treated -Number of soil conservation structures established -	-Community members, Dept. of ALF, Water, environment and natural resources, None state actors and NEMA, Kenya Forest Services, Sub-County and ward administrators, chiefs, Assistant chiefs and village leaders.
	Promote nutrient rich food through increased production, diversification and biofortification	- Number of people reached on livelihoods interventions. -Number of trainings carried out. -Number of diets added to the normal diet. -Number of foods bio-fortified	KEFRI, KEPHIS, CSO, ALF, MOH
	Promote and support conservation and	-Number of watershed	Community members, Departments of ALF, Water, environment and natural

protection of watersheds and water bodies	management plans developed -Number of watersheds protected.	resources, None state actors and NEMA, Kenya Forest Services, Sub-County and ward administrators, chiefs, Assistant chiefs and village leaders.
Promote sustainable irrigation and efficient water management system	-Number of people using water efficiently.	
Promote measures that reduce cost of agricultural production	-Number of costs reduction measures in place. -Percentage increase in agricultural income at household level. -Number of demo and trial sites established.	- Community members, Departments of ALF, None state actors
Promotion of sustainable food production systems with emphasis of agro ecological farming practices including wholistic land and livestock management system	-Number of agro ecological farming elements being implemented in crop and livestock production.	- Community members, Department of ALF, None state actors
Promote and support circular and solidarity economies through cooperative systems, rural out growers' schemes and fair-trade policies to increase the share of small-scale agro ecological producers in the production of crops and livestock	-Number of community based organizations and cooperatives actively embracing Agroecology. -Number of agro ecologically grown crops and livestock being produced and marketed. -Number of food products certified superfoods locally produced.	-, Department of ALF, Trade and cooperatives, County assembly and None state actors

	Create awareness on the recommended Post Harvest Interval (PHI) and maximum residual level and general safety and use of pesticides and herbicides and facilitate implementation of the laws governing use of pesticides	-Number of awareness events and forums held.	KEPHIS, ALF, public admin, APR, KOAN,
2. Facilitate widespread public awareness, education, participation, ownership and oversight of Agroecology response efforts and action plans	Develop agro ecological training curriculum for service providers	-Number of workshops held to develop the training curriculum -Number of training curriculums developed -Number of service providers trained using the curriculum	County departments (ALF, WENR, LPUH, Public health) relevant stakeholders
	Build the capacities of stakeholders on Agroecology to enhance extension capacity	Number of stakeholders in agroecology capacity built	Consultancy, ALF, PELUM Kenys, RIDEP, SACDEP, Manor house, Baraka agriculture training centre
	Develop radio programs and mass messaging apps for widespread public awareness	-Number of radio programs developed -Number of mass messaging apps adopted -Number of people reached	Community, Local language radio stations, mobile phone services providers, County departments (ALF, WENR, LPUH, Public health, County communication office) relevant stakeholders
	Conduct participatory rural appraisal to establish and document the use of indigenous knowledge, agrobiodiversity and local resources for education, participation, ownership and oversight of Agroecology response efforts and action plans	-Number of rural participatory appraisals conducted -Number of documentaries developed	Local community, researchers, County departments (ALF, WENR, LPUH, Public health, County communication office) relevant stakeholders

	Develop and disseminate simplified information, education and communication materials for the public	-Number of meetings and works held to develop communication materials -Number and type of communication materials developed	Local community, researchers, County departments (ALF, WENR, LPUH, Public health, County communication office) other relevant stakeholders
	Set up Agroecology demonstrations and trial farms	-Number of demonstration and trial farms established	Local community, researchers, County departments (ALF, WENR, LPUH, Public health, County communication office) other relevant stakeholders
	Strengthen the existing Agriculture Training Institute Agroecological component	number of agroecology training modules developed, Number of ATI supported in upgrading agroecology practices	TVETs, CSOs, ALF, KEFRI, KFS, water and natural resources.
4. Enhance research and use of science and technology in Policy Decision and sustainable management of resources in Agroecology activities	Mainstream Agroecology research, innovation/technology transfer and adoption of appropriate Agroecological practices in the County integrated development plans (CIDPs) and Annual Development plans (ADPs)	-Number of agro ecological activities budgeted for in the CIDPs and ADPs) -Amount of funding for Agroecological activities	County departments (Finance and planning, ALF, WENR, LPUH, Public health) other relevant stakeholders
	Document practical indigenous technical knowledge on Agroecology and sustainable food systems	-Number of documentaries developed Number of training manuals developed	Local community, Researchers, County departments (ALF, WENR, LPUH, Public health) other relevant stakeholders
	Promote farmer demand driven research in Agroecology (to address pertinent real issues from the communities)	Number relevant research outcomes documented	ALF, CSOs, KEFRI, KALRO, TVETs, KFS,

	Establish farmer resource centers as technology transfer units and community learning centers.	number of farmer resource centres hubs establish	trade and cooperatives, environment and natural resources, ALF, CSO, KEFRI, TVETs,
	Strengthen linkages between research and training institutions with extension service providers including other Agroecological centres.	number of MOUs signed with relevant institutions and other agroecological research centres	TVETs, ALF, CSOs,
5. To provide a framework to mobilize resources for Agroecology practice and ensure effective and transparent utilization of resources	Provide a framework to mobilize resources for Agroecology practices	-resource mobilization framework in place	Consultancy, relevant county departments, CSOs,
	Create awareness on Agroecological opportunities for entrepreneurs to encourage investment	Number of events, forums for entrepreneurs to encourage investment	CSOs, agroeco companies, KOAN, relevant County departments,
	Mainstream Agroecology activities in CIDP and ADP.	Number of agroecology practices and technologies enshrined in CIDPs and ADPs	-relevant county departments, KOAN, CSOs,
6. Institutional framework for enhanced coordination and collaboration amongst relevant stakeholders and actors.	Map-out all stakeholders and actors in Agroecology in the County	-Number of platform meeting held between climate change and Agroecology teams -Data base for all stakeholders in the county	-County assembly, County departments (ALF, WENR, LPUH, Public), Consultant on Agroecology , Development partners
	Facilitate the formation of Agroecological stakeholders' platform	-Number of platform meetings held -Data base for all stakeholders in the county	-County assembly, County departments (ALF, WENR, LPUH, Public), Consultant on Agroecology , Development partners

	Promote coordination and collaboration amongst relevant stakeholders and actors	-Number of Agroecology platforms, events and trainings held	-County assembly, County departments (ALF, WENR, LPUH, Public),Consultant on Agroecology , Development partners
	Build the capacities of stakeholders, actors and civil society organizations on Agroecology to enhance extension capacity	-Number of Agroecology stakeholders trainings held	-County assembly, County departments (ALF, WENR, LPUH, Public),Consultant on Agroecology , Development partners
To mainstream Agroecology in climate change mitigation and adaptation.	Strengthen Community Forest Associations and Water Resource Users Association	-Number of CFAs and RUAs strengthened	KFS, ALF, Water and environment , CFAs, RUAs
	Promote sustainable clean and green energy	-number alternative sources of clean energy promoted	Trade and cooperatives, ALF, environment and natural resources, KEFRI, energy and industry department, CSOs
	Promote agroforestry	Number of agroforestry trees planted number of land acreage under agroforestry	MOE, ALF, environment and natural resources, KEFRI, CFAs, RUAs,
	Promote nature based enterprises e.g	-Number of nature based enterprises promoted	KEFRI, trade and cooperatives, CFAs, RUAs, environment and natural resources, CSOs,

	apiculture, silk production, gum production	-number of nature based enterprise adopted	
To develop, promote and enforce systems that ensure low cost inputs are available and accessible.	Develop and enforce standards for commercial agroecological inputs.	Number of commercial agroecological inputs and standards developed and enforced	ALF, CSOs, certifying bodies,
	Develop and promote an effective system for production and bulking of high-quality organic seeds and propagation materials.	-Number of bulking centers established and developed	-ALF, Trade and cooperative, CSOs, agro seed vendors,
	Support Public Private Partnership initiatives to enhance investments in provision of affordable and agroecological quality inputs. This will create demand for farmers agro-ecological produce and products.	-Number of MOUs on PPP signed -number of investments in agroecology initiated and established.	CSOs, public and private companies, ALF

To develop and support viable market and trade that create wealth for agroecology value chain actors.	Create awareness on agroecological produce and products and their benefits to human health and wealth creation.	-Number of sensitization events and forums held	Public administration CSOs Trade and cooperatives ALF Water and environment Private companies in trading agroecology	
	Devise mechanisms to address the cost of inspection and certification.	Number of options identified for inspection and certification of organic produce and products TOR for the committee devising the mechanisms.	MOA, ALF, KOAN, other certifying bodies	
	Establish and promote Agroecological aggregation centers for collective marketing to ensure sustained supply for the market.	Number of aggregation centre established. Number of farmers/aggregation groups formed in the supply chain Number of market outlets established.	ALF, Trade and COOPERATIVES , agro ecological dealers, farmers, pastoralists,	
	Train and motivate the young entrepreneurs and other actors in the value chain to visualize huge opportunities in agroecology and hence	Number of young entrepreneurs identified, trained and motivated to embrace agroecology.	ALF, CSOs	

	embrace agroecology as a business.	number of young entrepreneurs practicing agroecology. Number of agroecology businesses set up.	
	Promote exhibitions, trade fairs and shows on agroecological produce, products and food.	number exhibitions number of young entrepreneurs produced number of exhibitors in trade fairs	ALF , CSOs,

CHAPTER 6

MONITORING AND EVALUATION

Monitoring and Evaluation

This is a key component in the process of policy implementation. It is intended to measure the progress in the implementation of this Policy and the overall impact of policy in general. The Matrix below reflects the Policy's overarching objectives as well as objectively verifiable indicators, actors and timelines within which each strategy is to be achieved. Monitoring and Evaluation tool will be to ensure prudent and timely utilization of resources against set targets and while learning and documenting useful lessons to inform the policy review overtime.

Progress Reports

The County Government of Tharaka Nithi shall prepare quarterly and annual M&E reports on the progress of implementation of the Policy. The County shall commission external evaluation, to be conducted by an independent agency to measure outcomes and impacts of the Policy and inform its review.

Feedback Mechanisms and Stakeholder Consultation

The County Government of Tharaka Nithi shall be holding a County agro ecological fairs/days with all stakeholders involved to monitor progress in implementation of the Policy and receive feedback from farmers and other stakeholders.

Timelines for Policy Review

The policy shall be operational for a period of five years and shall be subjected to a midterm review

APPENDIX

Agroecology training participants.

The training was attended by County Executive Committee member for agriculture, Livestock and Fisheries, the office of the Chief Officer Agriculture, Livestock and Fisheries, the Director Agriculture Livestock and Fisheries, the County Assembly Chairperson of Agriculture, Livestock and Fisheries and ten members of this committee. Other participants included four farmers working with Institute for Culture and Ecology (ICE), one ICE officer, the regional coordinator of Participatory Ecological Land Use Management (PELUM Kenya), three Caritas Meru staff members and seven members of other organizations supporting Agroecology.

Learning Tour Attendees

Those participating in the learning tour to LPC included the CECM, the office of C.O, the County Director of Agriculture, the County Assembly ALF committee chair and members, the members of the alliance and farmer representatives.

More linkages

	Institution	Role
1.	Kenya Plant Health Inspectorate Services (KEPHIS)	Responsible for regulating plant health issues relating to phytosanitary and seed matters
2.	Kenya Agricultural and Livestock research Organization (KALRO)	Mandated to carry out research in the field of agriculture and Livestock
3	Kenya Bureau of Standards (KEBS)	To promote standardization in commerce and Industry
4	National Environment Management Authority (NEMA)	The principal instrument of the government in the implementation of all policies relating to the environment
5	Universities and Colleges	To carry out research and development of human capacity
6	Kenya Forest Services (KFS)	Provision of indigenous tree seeds and seedlings
7	CARITAS	Development of the policy and advocacy
8	Community Based Organization (CBO)	Sensitization and awareness creation
9	Farmers' Cooperative Societies	Sensitization and awareness creation