

NAIROBI CITY COUNTY



AGRICULTURE, LIVESTOCK AND FISHERIES

Nairobi City County Urban And Peri-Urban Agriculture, Livestock And Fisheries Policy

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FORWARD

Agricultural growth and development is crucial for Kenya's overall economic and social development. Agriculture directly contributes 24% to Gross Domestic Product (GDP) and 60% of export earnings. The Kenya Vision 2030 identifies agriculture sector as a key driver to deliver to the 10 percent annual economic growth rate by contributing more than Ksh. 80 billion annually to GDP as envisaged under the economic pillar. In 2012 the sector recorded a growth rate of 3.8% as compared to 1.5% in 2011. The sector has cascaded the aspirations of the Kenya Vision 2030 through Agricultural Sector Development Strategy 2009-2020, which aims at improving the standard of living of Kenyans by substantially alleviating poverty and hunger, famine and starvation. These measures are also in line with the Millennium Development Goal No. 1 of halving the population in extreme poverty and hunger by the year 2015. The population affected by extreme poverty and hunger include those living in urban and peri-urban setups.

Nairobi City County is experiencing rapid urbanization as a result of rural-urban migration. Urbanization comes with increased urban population leading to increased demand for food, improved infrastructure and other services. This calls for innovative ways of utilization of existing potential natural resources. Urban and peri-urban agriculture, livestock and fisheries activities are some of the initiatives for addressing food security, income generation, environmental among other challenges. The challenges that face the UPALF sector are associated with; land use, crop, fish and livestock production, technology development and dissemination, markets and marketing, safety of UPALF practices and products, environmental pollution and provision of support services. In addition, there is inadequate legal and regulatory framework to govern the sector. These shortcomings have led to underdevelopment of the sector.

The Urban and Peri-urban Agriculture, Livestock and Fisheries Policy is the sectors outline of policy interventions to be pursued in order to address the challenges and to improve the sector's growth

and development. Thus, the policy aims at giving clear direction for sustainable development of the UPALF and underscores the importance of public-private sector partnerships in accelerating growth in the sector.

All the proposed interventions in this policy paper will need to be supported by an appropriate legal framework and will require the support of all stakeholders for its successful implementation.

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PREFACE

One of the strategic objectives of the agricultural sector is to create an enabling environment for agricultural development on a sustainable basis. In the past, urban and peri-urban agriculture, livestock and fisheries activities did not receive adequate attention by policy makers since it was regarded as an insignificant cultural practice associated with rural life. However, the complexity of urban life coupled with high poverty levels has led to increased agricultural activities in the urban and peri-urban areas, and it is now a livelihood strategy. Urban and peri-urban agriculture, livestock and fisheries activities therefore, play a crucial role towards improved livelihoods of the urban poor.

Urban and peri-urban agriculture, livestock and fisheries activities have great potential in contributing to economic development of Nairobi City County. Urban and peri-urban agriculture, livestock and fisheries activities offers extensive processing and handling opportunities which underpin its importance in contributing towards employment creation and income generation. Urban agriculture, livestock and fisheries also plays a pivotal role in alleviating hunger and malnutrition among the urban poor, as well as being a survival strategy for the urban unemployed. In view of urban and peri-urban agriculture, livestock and fisheries sector contributions to economic development, there's need to formulate a policy to guide the sector.

This Policy therefore addresses the key challenges in the sector to ensure it occupies its proper place in Nairobi City County development agenda.

The document was arrived at after wide stakeholders' consultations through workshops, meetings held in various sub-counties and references.

We take this opportunity to thank everyone who was involved in the production of this Policy document including government officials, private sector players, civil society representatives and our development partners

We hope that the implementation of this Policy contributes significantly to food security and poverty alleviation and employment creation in Nairobi City County.

**Chief Officer,
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ACRONYMS AND ABBREVIATIONS

ADB	African Development Bank
ASCU	Agriculture Sector Coordinating Unit
CBOs	Community Based Organizations
CGIAR	Consultative Group on International Agriculture Research
CIP	International Potato Center
DFID	UK Department for International Development
DVS	Director of Veterinary Services
ERS	Economic Recovery Strategy
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FBOs	Faith Based Originations
FPEAK	Fresh Produce Exporters Association of Kenya
GEF	Global Environment Facility
GiZ	German International Co-operation(<i>Deutsche Gesellschaft für Technische zusammen</i>)
HCDA	Horticultural Crops and Development Authority
IDRC	International Development Research Centre
ILRI	International Livestock Research Institute
JICA	Japan International Cooperation Agency
KACE	Kenya Agricultural Commodity Exchange
KARI	Kenya Agricultural Research Institute
KCN	Kenya Consumer Network

KDB	Kenya Dairy Board
KEBS	Kenya Bureau of Standard
KEFRI	Kenya Forestry Research Institute
KEMRI	Kenya Medical Research Institute
KENFAP	Kenya National Federation of Agricultural Producers
KEPHIS	Kenya Plant Health Inspectorate Services
KEPSA	Kenya Private Sector Alliance
KFS	Kenya Forestry Services
KIRDI	Kenya Industrial Research Development Institute
KMC	Kenya Meat Commissions
NCCG	Nairobi City County Government
NCCUAPAB	Nairobi City County Urban Agriculture Promotion Advisory Board
NCCALF	Nairobi City County Agriculture, Livestock and Fisheries
NCCLHPP	Nairobi City County Land, Housing and Physical Planning
NCCPHS	Nairobi City County Public Health Services
NCCTICTW	Nairobi City County Trade, Industrialization, Cooperative Development Tourism and Wildlife
NCCEWEFR	Nairobi City County Environment, Water, Energy, Forestry and Natural Resources
NCCEGYSS	Nairobi City County Education, Culture, Gender, Youth and Social Services
NCCPWI	Nairobi City County Public Works and Infrastructure
NCCFEP	Nairobi City County Finance and Economic Planning

NCCPSM	Nairobi City County Public Service Management
NCCICEG	Nairobi City County Information, Communication and E-Government
NEMA	National Environment Management Authority
NGOs	Non - Governmental Organizations
NUSC	National UPAL Steering Committee
OoP	Office of the President
PCPB	Pest Control Product Board
PHSB	Public Health Standards Board
RELMA	Regional Land Management Unit
SIDA	Swedish International Development Cooperation Agency
UNEP	United Nations Environment Programme
UPALF	Urban and Peri urban Agriculture Livestock and Fisheries
USAID	United States Agency for International Development
WAC	World Agro Forestry Centre

EXECUTIVE SUMMARY

The world is rapidly urbanizing and it is estimated that by 2030, 60% of the world's population will be living in urban areas. In developing countries, urbanization has had the negative consequence of inequitable economic growth, food insecurity and increased urban poverty. Kenya like many other African countries continues to experience increased rural-urban migration as people seek better livelihood sources in urban areas. According to Kenya Vision 2030, it is estimated that by the year 2030, 63% Kenyan population will be domiciled in urban areas. This migration will continue to present challenges in infrastructure development, services provision and food requirements to meet the needs of increasing urban population. The effect of urbanization has led to conversion of land hitherto used for farming to other land uses.

The overall objective of Urban and Peri-urban Agriculture, Livestock and Fisheries (UPALF) Policy is to promote and regulate sustainable UPALF sector development to improve incomes, food security, create employment and reduce poverty to enhance living standards; with focus on land use, public health and environment. This will require addressing the following areas:

1. Coordination and reviewing of policy and legislation affecting UPALF with the aim of developing concerted sector improvement;
2. Integration of UPALF agenda in the planning and development of Nairobi City County.
3. Strengthen Nairobi county government legislation to support UPALF development.
4. Formulating, developing and promoting appropriate technologies for sustainable UPALF development ;and
5. Promoting conservation of the environment by management of waste and other pollutants from the UPALF sector
6. Promote and coordinate marketing of UPALF products through

improved markets, transport and information exchange

7. Enhancing and strengthening of collaboration and linkages between institutions, players and other agencies dealing with UPALF development activities;
8. Developing and strengthening institutional capacities to handle UPALF and linking of the same with National Food Security and Nutrition Steering Committee;

UPALF sector's development has been constrained by weak policy, inadequate legal and regulatory framework; which have resulted to environmental pollution; inappropriate crop and livestock production technologies; inadequate market infrastructure and information; compromised food safety and compromised ecosystem integrity due to land use changes. For each of these constraints the policy assesses and discusses associated causes of these limitations and outlines specific intervention measures to be undertaken in order to achieve the outlined policy objectives.

The policy explores and proposes an institutional framework for engaging the key players in the sector critical to the achievement of the policy objectives. These key stakeholders include the departments responsible for matters relating to agriculture, livestock development, fisheries, public health, environment, and lands and urban planning. Finally, the policy provides an implementation framework and timelines for delivering and realizing policy objectives.



1.0 INTRODUCTION

1.1 Background

The world is rapidly urbanizing. The average global urban population increase is 160,000 people per day, mostly occurring in developing countries. In the year 2000, approximately half (49%) of the world population lived in urban areas. This will have risen to 54% by 2020 (UN, 2010). In sub-Saharan Africa, urbanization levels vary widely. In the year 2012, for instance, 70% of the population in Zambia was urban while it was 32% in Kenya. It is estimated that Kenya's population will be 63% urban by 2030 (GoK, 2008). The increased urban population has resulted in social and economic challenges including rise in food demand, environmental burdens, inequitable economic growth, increased urban poverty, limited access to clean water and sub standard waste management. This necessitates the need for organized urban land uses that contributes to economic well being without compromising safety, security and economic development of the people.

An estimated 800 million people are engaged in urban and peri-urban agriculture livestock and fisheries (UPALF)¹ activities worldwide (Smith *et al*, 1996). In Africa, In Accra Ghana, for example, 14% of the households practice UPALF (Amar-Klemesu and Maxwell, 2000) and 30 % in Kampala, Uganda (FAO 2005). This practice in most countries is however, taking place in an environment devoid of any guiding policy framework thereby compromising productivity, environmental integrity, public health and security. Few countries notably South Africa, where in Cape Town, there is an urban agriculture policy which supports and promotes urban agriculture while safeguarding public health.

¹ This is the cultivation of crops and the raising of animals, processing and marketing for food and other uses within urban areas (intra-urban agriculture) and in the fringes of urban areas (peri-urban agriculture), in response to the daily demands of consumers within the town, city or metropolis; on land and using water found in these areas, applying intensive production methods, using and recycling natural resources and urban waste, to yield a diversity of crops and livestock products.

In urban and peri-urban areas, food constitutes a significant proportion of household expenditure. This proportion is particularly higher for the urban poor. Urban and peri-urban agriculture has the potential for improving food availability, improving incomes and livelihoods of the poor. Studies carried out, in Dagoretti Division, Nairobi showed that urban dairy production has potential to increase availability of both livestock and crop products and household incomes (Kangethe *et al*, 2008). In Kisumu, urban and peri-urban farming practices including small-scale rainfed mixed farming, small scale irrigated agriculture, wetland farming, fish farming and free range livestock keeping contribute substantially to urban household food availability (ibid).

Such urban agriculture practices and opportunities underscore the need to have a structured framework for guiding sustainable management of UPALF resources. This has been the motivation for developing this UPALF Policy so that the development aspirations of the County are achieved in tandem with innovative systems for prosperity, sustainability and improvements in the quality of life as envisaged in the Kenya Vision 2030.

1.2 Current Status of UPALF in Nairobi

1.2.1. Policy, Legal and Regulatory Framework

The Constitution of Kenya 2010 provides for two levels of government namely the national government and the county government. The functions of the national government entail policy formulation, development of standards and regulations, whereas functions of the county government include formulation of county specific policies and laws, implementation of national policies, guidelines and regulations related to health, planning and development, pollution control, soil and water conservation, forestry, trade development, animal welfare and agriculture. These aforementioned functions have a direct relationship to UPALF. The UPALF Policy is in line with the function of County government of policy and laws formulation.

This policy is guided by among others:

- i. The Kenya Vision 2030 which calls for nationwide urban planning development.
- ii. The Sessional Paper No. 4 of 2012 on National Food and Nutritional Security Policy and other Agriculture sector policies
- iii. The Bill of Rights Article 43 (c) of the Constitution Of Kenya, 2010 which provides that every person has the right to be free from hunger and to have adequate food of acceptable quality.
- iv. The Urban Areas and Cities Act No. 13 of 2011 which provides for integrated development planning of urban areas and cities (Section 36(1) (f)); the development of a framework for regulated urban agriculture (Section 40(1)); and, the control of land use, land sub-division, land development and zoning (Section 20(1) (b)).
- v. The various acts that regulate the Agriculture, Livestock and Fisheries sector such as Agriculture act cap 318, Agriculture and Livestock production act (cap), Animal diseases act cap 364 and Fisheries act cap 378 among others
- vi. Public Health Act (Cap 242), prescribes requirements for express authority to be obtained from the Cabinet Secretary responsible for matters related to health for any UPALF activities to be carried out.

The County Government Act, Of 2012, Section 103 provides for facilitating the development of a well-balanced system of settlements and ensuring productive use of scarce land, water and other resources for economic, social, ecological and other functions across a county; and, maintain a viable system of green and open spaces for a functioning ecosystem.

1.2.2 Land use

There are many competing uses for land in urban and peri-urban areas. These include buildings, infrastructure, agriculture and urban open space. UPALF farming is mainly practiced in open public land, rented land, rented/owned backyards, verandas and balconies,

way-leaves, river banks and on private farms. Urban and Peri-urban Agriculture Project (UPAP) Baseline Survey, a study carried out by Ministry of Agriculture in Nairobi in 2012, found that, most of the land for UPALF was privately-owned with 37.5% in urban setups, and 71.8% in peri-urban. The study found out that, the average land size was 0.5 acres and 1.44 acres for the urban and peri-urban households respectively. Use of open public land was 17.2%. UPALF production is practiced on limited land that is increasingly under pressure from alternative uses. In most urban areas the predominant tenure system is private leasehold. In addition, once urban areas are extended all land within such jurisdiction are subject to laws that limit user rights.

1.2.3 Water

Sources of water for UPALF include rain water, county water systems, boreholes/shallow wells, domestic waste water, water pans and sewer lines. Due to inadequate development of water supply systems for UPALF, there has been heavy reliance on use of County water which leads to conflict with domestic use. According to Urban and Peri-urban Agriculture Project UPAP Baseline Survey, 2012, 33.4% of urban and peri-urban farmers use water from boreholes and shallow wells for irrigation while 4.3% used sewage water in Nairobi City County. According to this survey, 4.3% farmers use untreated sewage water in Nairobi. This exposes agricultural workers and their families, handlers, consumers of products and those living near the areas to health risks.

1.2.4 Aquaculture, Crop and Livestock Production

The production of crops, rearing of livestock and aquaculture is characterized by inadequate coordination, support services and regulation. This has led to UPALF production malpractices and its adverse effects leading to unrealized UPALF potential.

In urban and peri-urban areas mixed farming is a common practice. This involves fish rearing, crop growing and livestock keeping. Important fish species reared include warm water and ornamental fish. Crops include, maize, beans, kales, bananas, tomatoes, cowpea,

spinach, cabbages, sugarcane, potatoes, arrow roots, capsicum, local vegetables, and flower/tree nurseries. Livestock kept include dairy cows, goats, sheep, pigs, poultry, rabbit's, bees, companion animals/pets and emerging livestock.

1.2.5 Technology Development, Dissemination and other Support Services

Technology development and dissemination is guided by the National Research Science and Technology Policy. This is augmented by National Agricultural Research System Policy and the National Agricultural Sector Extension Policy which advocate value chain approach to technology development and dissemination. Much of the technology development being carried out is broadly on conventional agriculture which does not adequately address complex UPALF issues. Similarly, dissemination of technologies to UPALF farming systems has been more focused on production leaving gaps along the value chain.

Within the UPALF sector there are outstanding technologies which have been adopted for use by various actors. These include greenhouse, zero-grazing, fishponds, fishing gears, aquarium, ICT-based technologies on production, processing and marketing. These technologies have however not had wide adoption due to cost, conflicting by-laws, inappropriate packaging and inadequate dissemination.

Other support services include; financial services, input supply, transportation, regulatory and certification. Financial services refer to both credit and insurance services. Most of the services are accessible but not to the optimum level needed to support UPALF activities.

1.2.6 Markets and Marketing

The main market outlet for UPALF products is farm gate through middlemen at 74% and 83% for urban and Peri-Urban respectively (UPAP Baseline Survey Report, 2012). Nairobi City County is the main market for agricultural produce from other regions of Kenya. However weak market organizational structures in Nairobi City

County are not conducive to the marketing of UPALF produce. In the county, the market infrastructure is poorly maintained and lacks basic facilities including cold storage, sanitation, and reliable power supply. Whereas all formal produce markets belong to the Nairobi city county government, the facilities for slaughter of live animals and fish processing in the Nairobi City County are privately owned.

1.2.7 Safety of UPALF Practices and Products

There are various predisposing factors to health risks associated with the UPALF activities and products. The risks cut across the value chain from production to consumption. These risks include use of contaminated water, grey water, sewage and industrial effluent laden with heavy metals and air pollution; crop, livestock and fish production in and around dumpsites. The UPAP Survey Baseline shows that, 33.4% urban and peri-urban farmers use water from boreholes for irrigation while 4.3% use sewage water in Nairobi City County. Livestock products may be unsafe as a result of possible feeding on contaminated feeds, poor slaughter hygiene, uninspected products, unhygienic handling of products and inadequate management of animal health. There is a tendency of close cohabitation of human and animals which causes health risk of zoonotic diseases. Excessive use of agro chemicals leads to environmental pollution, food and feed contamination and health risks to the producers and consumers. The survey further showed that only 47% apply good agricultural practices while 70% practice safe use of pesticides.

This policy acknowledges that the National Food and Nutrition Security Policy (NFNSP) addresses these concerns by providing framework for ensuring that safe and high quality food is available to all Kenyans, at all times, by creating public awareness on relevant issues, and by setting, promoting and enforcing appropriate guidelines, codes of practice, standards and a regulatory framework.

1.2.8 Environmental Issues

UPALF offers opportunities and presents challenges in the management of urban waste. Whereas UPALF practices are major

consumer of organic liquid and solid waste there are challenges in management of waste from UPALF activities.

a) Urban Waste Management

There are three forms of wastes generated in the urban setups namely, solid, liquid and gaseous wastes. A study carried out by JICA 1997 in Prain et al 2010, found out that the majority of solid waste in developing world cities is organic including about 70% of what is produced in Nairobi. This translates to half a million tonnes of organic waste. If these wastes were recycled they could be used as livestock feed or compost. It is estimated that about 2223 tonnes of nitrogen (N), 2223 tonnes of phosphorous (P) and 3700 tonnes of potassium (K), worth US\$ 2 million, would be generated annually (JICA 1997, ITDG-EA 2003 in Prain et al 2010).

Liquid wastes generated in the city include sewage, storm water, industrial effluent, and wastewater and sludge from abattoirs.

In Nakuru, on average, 91% (by weight) of the total amount of raw domestic waste produced by farming households was re-used, the largest proportion of this (96%) being fed to livestock. This indicates the useful role played by farming households, and in particular livestock keepers, in managing urban waste and recycling it for productive purposes (Njenga et al 2004 in Prain 2010).

Nairobi County is mandated to manage water and solid wastes within its jurisdiction while individual farmers take responsibility for the management of agricultural wastes.

b) Pollution:

There are various forms of pollution that are brought about by urban and peri-urban farming activities. These include land pollution, water pollution, noise and air pollution. Land pollution is caused by inappropriate disposal of manure and crop residues, excessive use and unsafe disposal of pesticides and their packages and, use of raw sewage containing microbes, industrial effluents containing heavy metals, plastics and other household and industrial wastes. Water

pollution is as a result of percolation of pesticides and leachate, microbial contamination to the underground water or through runoff from farms, storm water, slurry discharge from livestock to unprotected wells and rivers. In addition, use of raw sewage, and burst sewer lines lead to contamination of water.

Noise from livestock may be a source of pollution. In addition, emission of obnoxious odours from UPALF activities, and burning of residues contribute to air pollution.

1.2.9 Cross Cutting issues

a) Gender

Gender relations are influenced by ethnic origin, age, religion, marital status, traditions, ideologies, societal perceptions as well as cultural and economic conditions. Gender gaps are manifested in various facets of life. Over 60 per cent of agricultural related activities are carried out by women. In urban and peri-urban areas the role of women in marketing of primary agricultural produce is more pronounced.

The youth constitute an important resource with potential to revitalize agriculture in UPALF. However, just like in the case of women, youth tend to have limited access and control over productive resources. Moreover, being dynamic and energetic, the youth are impatient and need quick and tangible results to be attracted to any business and therefore tend to avoid agriculture activities.

b) HIV/AIDS

HIV/AIDS pandemic is a major concern to the UPALF sector. The active age group of between 15 and 39 years, confirm figures for Nairobi constituting about 70 percent of the population, is most vulnerable to the pandemic. Within this group, women and girls, who constitute about 60 percent to 80 percent of the household labour force, are more vulnerable to HIV/AIDS due to biological, economic and social factors. The situation for women is aggravated by the added burden placed on them by traditional responsibilities of caring for the sick.

Consequently, AIDS has far reaching adverse effects on UPALF sector development.

c) Persons with Disabilities

These are persons with special needs such as physical, mental, visual and audio and speech disabilities. Families who have such members and society in general tend to hide and stigmatize such members. Some of these members of society have capabilities which are underutilized for activities that include UPALF. In addition, little focus has been given to development of technology that is specifically targeted towards use by persons with disability.

2.0 OBJECTIVE OF THE POLICY

2.1 Rationale for the UPALF Policy

According to Resource Centre for Urban Agriculture and Food Security (RUAF), the most striking feature of urban agriculture, which distinguishes it from rural agriculture, is that it is integrated into the urban economic and ecological system: urban agriculture is embedded in-and interacting with- the urban ecosystem. Such linkages include the use of urban residents as labourers, use of typical urban resources (like organic waste as compost and urban wastewater for irrigation, direct links with urban consumers, direct impacts on urban ecology (positive and negative), being part of the urban food system, competing for land with other urban functions, being influenced by urban policies and plans. Urban agriculture is neither a relic of the past that will fade away (urban agriculture increases when the city grows) nor brought to the city by rural immigrants that will lose their rural habits over time. It is an integral part of the urban system.

Urban and peri-urban agriculture has the potential for addressing urban vulnerability through:

- i. Resilience of urban food systems thus increasing food availability and incomes.
- ii. Recycling of organic wastes into animal feed, crop nutrients and bio-energy thus mitigating the effect of environmental pollution.
- iii. Contribution to greening of cities.
- iv. Reduction of carbon footprints and risk of contamination during transportation and handling of food produced elsewhere.

2.2 Broad Policy Objective

The objective of the policy is to guide the development of safe and sustainable UPALF value chains and contribute to improvement in

income, food security, and creation of employment, enhancement of living standards and reduction of poverty

2.3 Specific Objectives

1. Create an enabling environment for UPALF development through policy, legal and regulatory frameworks.
2. Optimize the use of available land in urban and peri-urban areas for agricultural development.
3. Increase crop, livestock and fish productivity in urban and peri-urban areas
4. Enhance and strengthen collaboration and linkages between institutions, players and other agencies dealing with UPALF development activities.
5. Develop and strengthen institutional capacities to handle UPALF activities.
6. Develop and disseminate appropriate technologies for sustainable UPALF development.
7. Ensure the safety of UPALF practices and products
8. Promote conservation of the environment and enhance management of urban waste and other pollutants.
9. Enhance market access for UPALF products.

3.0 CONSTRAINTS AND POLICY INTERVENTIONS

3.1 Policy, Legal and Regulatory Framework

3.2.1 Constraints

Despite the obvious benefits to be gained from UPALF it is noteworthy that there is inadequate and uncoordinated policy and legal framework to guide its development. Review of legislations has not sufficiently kept pace with the development of UPALF activities leading to conflict between agricultural activities and other urban land use. There is also inadequate support for UPALF activities and insufficient sensitization of key decision makers at the county level on the need for integration of UPALF activities in county government plans.

3.2.2 Policy Intervention Measures

The existence and implementation of a supportive policy and regulatory framework on UPALF farming is necessary for ensuring coordinated growth and development of this sector to realize its potential. Consequently, the following measures will be implemented to address constraints associated with policy, legal and regulatory framework:-

- i. Develop and implement a regulatory framework that is supportive of UPALF development as prescribed under Section 53(1) of the Urban Areas and Cities Act No. 13 of 2011.
- ii. Enforce existing legislations that relate to matters of the sector such as pesticide and fertilizer usage, animal feedstuffs, animal rights, food safety and environmental management etc.
- iii. Coordinate and build partnerships among the enforcement agencies in order to maximize synergies.

3.2 Natural Resources

3.2 .1 Land Use

3.2.1.1 Constraints

One of the major challenges to UPALF is land use. Most of the parcels of land in urban set ups are designated for other land uses other than UPALF. Areas that have potential for agricultural practice have been gazetted as commercial plots.

The following are the specific constraints to land use:

- i. Competition between agriculture and construction of buildings for commercial purposes is on the increase due to rapid urbanization.
- ii. Inaccessibility and use of available spaces in urban areas.
- iii. Inadequate inclusion of all relevant stakeholders in land use planning

3.2.2.2 Intervention Measures

Since land is critical to crop, livestock and fish production, the urban strategic development plans need to incorporate UPALF activities as provided for under Urban Areas and Cities Act, No 13 of 2011. The following intervention measures will be implemented:

- i. Promote development of buildings vertically to save on available space and minimize on sprawl.
- ii. Integration of UPALF activities as a component of urban land use planning by the Nairobi County Government and in the land use master plan.
- iii. Intensify land use to increase production per unit area.
- iv. Zoning and designating areas in the Nairobi city county where safe and sustainable UPALF activities can be undertaken.
- v. Advocate and promote establishment of green edible cities

- vi. Promote monitoring of land use through wide publicity on the requirements and responsibilities on change of user rights.

3.2.2 Water

Constraints

Water is one of the major inputs in UPALF activities. Availability or lack of safe water has a major effect on the production and quality of products arising from UPALF. Nairobi City County being a water insufficient county is not only unable to meet the water needs for domestic use but also for production in UPALF sector.

UPALF practitioners experience the following constraints in accessing water for crop, animal and fish production:

- i. Inadequate rainwater harvesting.
- ii. Inadequate supply of water in urban and peri-urban areas to meet all the needs.
- iii. High cost of sinking boreholes.
- iv. Inefficient irrigation technologies.
- v. Contaminated water and sometimes water of unknown source.
- vi. Untreated sewage water

Policy Interventions

- i. Promote roof water harvesting and storage technologies.
- ii. Storm water harvesting, storage and treatment.
- iii. Exploitation of ground water sources by sinking boreholes.
- iv. Promote use of water efficient technologies.
- v. Treatment, storage and recycling of waste water for UPALF purposes

3.3 Crop, Livestock and Fish Production

One of the ways of increasing UPALF production is by growing high value crops, rearing high yielding livestock and fast growing fish.

3.3.1 Constraints

There are various constraints facing urban and peri-urban crop, livestock and fish production. These include:

- i. Low awareness and adoption of appropriate available UPALF technologies
- ii. Unavailability and lack of identity of ownership of agrarian land in UPALF areas
- iii. Inadequate Water for UPALF activities
- iv. Use of unapproved and sub-standards inputs in crop and livestock enterprises along value chain
- v. High cost of inputs
- vi. Limited exploitation of potential enterprises
- vii. Poor adherence to animal welfare standards

3.3.2 Intervention Measures

The policy will focus in implementing the following measures to address constraints to UPALF growth and development:

- i. Develop, disseminate, promote and reward adoption of appropriate technologies and practices for UPALF
- ii. Formulate laws protecting agricultural land from change of use, and or zoning agricultural belts within the city county to provide food for the city.
- iii. Develop and promote adoption of water harvesting and recycling technologies
- iv. Enforcement of legislation on crops, livestock and fisheries in the city county

- v. Avail affordable credit facilities
- vi. Promote the exploitation of existing UPALF related opportunities that include agro-tourism, recreational fisheries, animal sporting, ornamental and landscaping activities
- vii. Promote integrated agriculture, livestock and aquaculture activities and alternative uses of wastes
- viii. Creation of awareness and enforcement of animal welfare standards

3.4 Technology Development, Dissemination and other Support Services

There is need to continuously develop relevant, efficient and affordable technologies for the UPALF sector. To adopt these technologies other support services are essential. These services include extension, research, input supply and financial services.

3.4.1 Constraints

Technology development, dissemination and other services are carried out by many actors. These actors include public and private sectors, and are guided by various policies and regulations. However, their functions are constrained by the following factors:

- i. Weak linkages among researchers, extension service providers, regulatory agencies and other stakeholders.
- ii. Low prioritization of UPALF related research
- iii. Uncoordinated efforts in support service provision.
- iv. Limited resources for investment in research and technology dissemination.
- v. Requirements for accessing financial services for UPALF farmers are more stringent.
- vi. Insecurity experienced by the farmers, traders and extension agents

3.4.2 Policy Interventions

Strengthening technology development, dissemination and other support services are key to enhancing competitiveness of the UPALF sector. This can be achieved by prioritizing research and dissemination, strengthening of partnerships, collaboration, linkages and networking among relevant stakeholders in the sector. To realize these objectives the UPALF stakeholders will undertake the following intervention measures:

- i. Promote and strengthen linkages and networking between research institutions, extension service providers and other stakeholders.
- ii. Develop and disseminate appropriate technological packages that are demand driven and beneficiary led.
- iii. Enhance research and extension capacity through budgetary support, human resource and infrastructure development.
- iv. Put in place regulatory mechanisms to improve delivery of support services and enhance collaboration among stakeholders.
- v. Commercialize technologies through effective public-private partnership.
- vi. Improve and facilitate access to financial services for UPALF farmers
- vii. Enhance security for all UPALF activities.

3.5 Markets and Marketing

UPALF products have varying markets needs and require different facilities provided for in a wide range of markets. There is need for efficient and properly organized markets and marketing systems to ensure a sustainable UPALF sector. Markets and marketing of UPALF products are faced by many challenges. The following are some challenges facing the sector:

3.5.1 Constraints

- i. Market information asymmetry among various stakeholders along the value chain
- ii. Unregulated market agents such as brokers and middlemen
- iii. Stigma associated with UPALF products among consumers
- iv. Few and weak producer organizations limiting self-regulation and benefits from economies of scale
- v. Inaccessibility to niche markets.
- vi. Inadequate value addition of UPALF products
- vii. Inadequate market infrastructure without the necessary facilities like cold storage, water and electricity.

3.5.2 Intervention Measures

In order to address the challenges associated with the current marketing arrangements, the following intervention measures will be undertaken:-

- i. Establish and improve appropriate and formal market information exchange systems.
- ii. Introduce regulatory measures for market agents
- iii. Develop mechanisms for enforcement of product traceability
- iv. Strengthen existing and promote formation of new producer organizations.
- v. Develop mechanisms for coordinated enforcement of product and market standards by stakeholders.
- vi. Promote value addition of UPALF products
- vii. Modernize existing and build additional retail and wholesale satellite markets to meet rising market needs.

3.6 Safety of the UPALF Practices and Products

Rapid increase in the urban and peri-urban population and the rate of food supply is not in tandem leading to high demand for food. Consumers in most urban and peri-urban areas in Nairobi City County rely on urban markets for their food needs. As a result of this phenomenon, products from UPALF areas find ready market which in most cases is not regulated. Monitoring of safety standards along the value chain is inadequate.

The health of the consumers revolves around safety and quality of the food products they consume and the environmental safety measures undertaken, among other things. Exposure of the farmers and consumers to risks associated with use of contaminated food and water, agro-inputs, industrial effluent and untreated sewage is a matter of concern. The products resulting from unregulated UPALF activities may employ unsafe practices food safety continuum which may not be safe for human consumption and impact adversely on human health and the environment.

3.6.1 Constraints

The following specific constraints affect safety of UPALF practices and products:

- i. Lack of awareness and strict observance of Good Agricultural Practice (GAP), Good Manufacturing Practice (GMP) and Good Hygiene Practice (GHP).
- ii. Scavenging animals in UPALF areas causing increased health risks.
- iii. Use of unsafe water for production and handling of products at various points along the value chain.
- iv. Unsafe usage of agrochemicals in crops and animals.
- v. Discharge of industrial effluent and sewage into open posing great hazard to the crops, livestock and human due to high microbial levels and heavy metals.

- vi. Emissions that pose a risk of contamination to UPALF produce.
- vii. Over reliance on off-farm fodder, commercial feeds and manure whose source and safety may not be guaranteed.
- viii. Lack of traceability of crop, fish and animal products.
- ix. Sale of adulterated and contaminated UPALF products
- x. Limitation of designated facilities for slaughter and inspection of meat and meat products.
- xi. Consumer organizations are few and weak.

3.6.2 Policy Interventions

To ensure safety of UPALF practice and produce the service providers will undertake the following intervention measures:

- i. Create awareness and strict observance of Good Agricultural Practice (GAP), Good Manufacturing Practice (GMP) and Good Hygiene Practice (GHP).
- ii. Develop and implement a system that ensures safe use of waste water and guidelines for growing crops.
- iii. Establish mechanisms to ensure regular and effective inspection and control of the use of agrochemicals and veterinary drugs.
- iv. Enforcement of industrial toxic and chemical waste regulation through Environment Management Coordination Act (EMCA) to curb discharge of industrial effluent into the open and to ensure food safety.
- v. Develop mechanisms for coordinated enforcement of product safety requirements, and traceability.
- vi. Increase the number of designated slaughter facilities and enforce regulations.
- vii. Promote formation of new consumer organizations and strengthen the existing ones for advocacy and sensitization of consumers to make informed choice about food safety.

3.7 Environmental Issues

In as much as UPALF practices presents opportunities in addressing food insecurity and income generation, more often than not they raise various environmental issues. These issues are not limited to waste management, pollution and climate change. The constraints and interventions for aforementioned issues are presented below:

3.7.1 Pollution

3.7.1.1: Constraints

- i. Inappropriate use and disposal of pesticides and other wastes leading to contamination of land, water and air.
- ii. Indiscriminate livestock and fish husbandry management practices
- iii. Failure to comply with laid down regulations that cause noise and air pollution.

3.7.1.2: Interventions

- i. Promote waste management practices and recycling technologies that conserve the environment
- ii. Promote and enforce UPALF practices that conform with the requirements of Nairobi city county integrated development plans
- iii. Review and develop new regulations to bridge existing gaps and enhance coordinated enforcement of existing laws on pollution

3.7.2 Waste Management

3.7.2.2 Constraints

- i. Unsanitary disposal of agricultural waste like manure, fish by products, pond effluent and crop residues from individual farm holdings and industrial waste from agro based industries.

- ii. Inappropriate use and disposal of pesticides wastes and veterinary pharmaceuticals leading to contamination of land and water.
- iii. Lack of organized form of collecting food remains from eating establishments to be used for UPALF activities.

3.7.2.2. Interventions

- i. Promote use of appropriate and safe UPALF practices along the value chains such as recycling technologies, separation of wastes at source, promotion of alternative uses of wastes and integration of crop-livestock and fisheries enterprises (Salvage Potential- on farm).
- ii. Effective treatment of sewage water and waste water; and reuse for irrigation.
- iii. Explore opportunities and promote investments in agricultural waste management through public-private sector partnership.
- iv. Institute measures for management and utilization of food waste for UPALF.

3.7.3 Climate Change

The phenomenon of climate change causes significant and lasting change in weather patterns resulting in global warming with a tendency in increase in frequent, droughts, floods, increase in sea level and diseases outbreaks.

Constraints

- i. Adverse effect of climate change on UPALF

Intervention

- i. Develop technologies and adopt approaches for enhancing adaptability and resilience to adverse effect of climate change

3.8 Cross Cutting Issues

Cross cutting issues include gender, HIV/AIDS and socio-cultural matters. These issues have the potential to adversely impact UPALF development and therefore require to be addressed in order to militate against their impacts of particular concern to UPALF are gender and HIV/AIDS.

3.8.1 Gender

Constraints in gender and youth as relates to urban and peri urban agriculture are as follows:

Constraints

- i. Different gender in a household has unequal access to and control of resources.
- ii. Single-headed households face unique challenges that affect their effective participation in UPALF
- iii. Youth have unequal access to and control of resources for UPALF activities.
- iv. The youth have a negative attitude towards agriculture related activities. Inadequate exploitation of employment opportunities for the youth along the UPALF value chain.

Proposed interventions

The UPALF sector, in line with Nairobi county Government Policy on Gender will undertake the following interventions.

- i. Develop and implement innovative programmes that enhance equity between men, women and youth in UPALF value chains.
- ii. Incorporate gender concerns in all UPALF programmes by the use of gender analysis and gender-based budgeting in all programmes through appropriate participatory approaches.
- iii. Promote value addition in the urban and peri-urban areas to increase employment opportunities for the youth.

- iv. Mainstream agriculture in all youth activities

3.9.2 HIV/AIDS

HIV/AIDS has impact on UPALF in terms of competition for household resources that include time, diet, labour and finances. In addition the strain associated with the HIV/Aids stigma may affect productivity in UPALF

Constraints

- i. Decline in asset base for UPALF due to consumption of household resources as a result of high health care costs.
- ii. Labour shortage and break-up of social bonds.
- iii. Change in ownership, access and management of resources at affected households
- iv. Increasing dependency among households headed by survivors – notably widows, orphans and elderly people
- v. Stigma associated with HIV/AIDS

Proposed interventions

In line with the Nairobi city county Government Policy on HIV and AIDS, undertake the following interventions;

- i. Put in place measures and structures to fight the HIV and AIDS pandemic that directly impact on the UPALF sector
- ii. Strengthen links with the National Aids Control Council (NACC) and develop integrated programmes for prevention and management of HIV/AIDS.

3.9.3 Persons with Disability

Underutilization of existing capacities among disabled persons hinder their effective participation in UPALF activities

Constraints

- i. Lack of mechanisms to identify and tap their capabilities.
- ii. Limited technologies to support different categories of disable persons.
- iii. Negative perception in regard to their capacities

Proposed Interventions

- i. Identify and tap their capabilities within the UPALF value chains
- ii. Development of user-friendly technologies to support employment of the various categories of disabled persons
- iii. Mainstream persons with disabilities in UPALF activities along the Continuum.

4.0 INSTITUTIONAL FRAMEWORK

4.1 Current Institutional Framework

There are various institutions that are involved either directly or indirectly in the UPALF activities. These institutions are public and private sectors including support partners. These institutions are interlinked by different mandates and responsibilities in the UPALF sector. Mostly, these institutions operate with limited coordination resulting in low effectiveness and efficiency.

4.1.1 Institutions Currently Involved in UPALF Activities

a) Public Sector

Nairobi city county government comprises of ten sector ministries. These sector ministries are charged with the responsibility of formulating, implementing, monitoring and evaluation of policies. The sector ministries with stake in UPALF include:

- i. Agriculture, Livestock and Fisheries
- ii. Land, Housing and Physical Planning
- iii. Public Health Services
- iv. Trade, Industrialization, Cooperative Development Tourism and Wildlife
- v. Environment, water, Energy, forestry and Natural Resources
- vi. Education, Culture, Gender, Youth and Social Services
- vii. Public Works and Infrastructure
- viii. Finance and Economic Planning
- ix. Public Service Management
- x. Information, Communication and E-Government

b) Parastatals

These are semi-autonomous institutions within the Nairobi city county government sector ministries charged with specific mandates. The parastatals in the National government with stake in UPALF activities in Nairobi City County include:

- i. The Kenya Agricultural Research Institute
- ii. Kenya Forestry Research Institute
- iii. Kenya Industrial Research Development Institute
- iv. Kenya Medical Research Institute
- v. The Public universities
- vi. Kenya Bureau Standards
- vii. Kenya Plant Health Inspectorate Services
- viii. Horticultural Crops Development Authority
- ix. Pest Control Product Board
- x. National Environmental Management Authority
- xi. Kenya Dairy Board
- xii. Kenya Marine Fisheries Research Institute
- xiii. Kenya Animal Genetics Resource Centre
- xiv. Kenya Veterinary Vaccines Production Institute
- xv. Aquaculture Advisory and Research Board
- xvi. Kenya Leather Development Council

c) International Research Institutions

These are institutions which operate in the country under the auspices of Consultative Group on International Agriculture Research (CGIAR) consortium. Nairobi City County will endeavour to link and partner with them. These institutions include:

- i. International Livestock Research Institute

- ii. World Agroforestry Centre
- iii. Regional Land Management Agency
- iv. International Centre for Potato Research
- v. International Centre for Maize and Wheat Research
- vi. International Centre for Insect and Pest Ecology

d) Private Sector

These are institutions that complement the public sector in the development of UPALF sector. These include:

- i. Processors
- ii. Input suppliers
- iii. Producer and Consumer Associations
- iv. Financial Institutions
- v. Community Based Organizations
- vi. Non-Governmental Organizations
- vii. Livestock Marketing Council

e) Development Partners

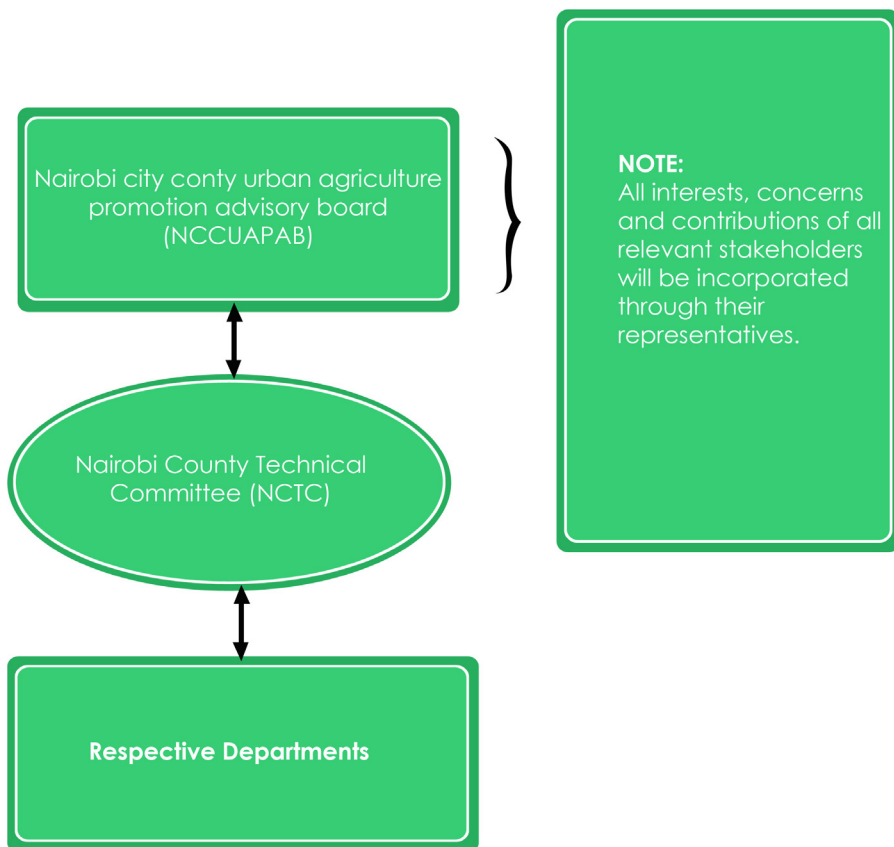
Development partners offer financial and technical support to urban and peri urban producers through various organizations. These organizations are either multi-lateral or bilateral. They supplement Government resources for promotion of e-marketing, improvement of major infrastructure like markets, roads, waste treatment plants, warehouses and rail linkages.

4.2 Proposed Institutional Framework for UPALF Coordination

In order to give general advice to the executive committee member on promotion of agricultural activities in Nairobi City County, there will be established the Nairobi city county urban agriculture promotion

advisory board (NCCUAPAB). UPALF activities will be coordinated by the County Technical Committee and implemented by the respective departments.

Proposed Structure of the Nairobi City County Urban and Peri-urban Agriculture, Livestock and Fisheries Secretariat



5.0 REVIEW MONITORING AND EVALUATION

Monitoring and evaluation will provide indication of progress made on the implementation of the policy. The Implementation Framework (IF) schedule provided elsewhere in this document forms the main reference for the monitoring and evaluation process.

The indicative timeframes on the IF begin from the time the policy becomes effective. The duration increases with depth and complexity of implementation of the expected outcome. The outcomes that are relatively easy to implement have been allocated less time and likewise those that require less resources to implement.

The relevant institutions for the particular outcome have been laid down with leadership for the monitoring and evaluation falling on the institution whose mandate that outcome closely falls. The resources to be used for monitoring and evaluating that particular outcome will be provided by the Nairobi City County Government.

The respective departments will implement the policy and undertake missions and review meetings quarterly. The supervision reports and minutes of the meetings will be written promptly to the UPALF Coordinating Committee with copies circulated to other relevant stakeholders for information and feedback.

The UPALF Technical Committee (UTC) is mandated to coordinate implementation of the policy and operations of the County Agriculture, Livestock and Fisheries. They will undertake two missions and review meetings annually. The reports and minutes of the meetings will be written promptly to the NCCUAPAB with copies circulated to other relevant stakeholders for information and feedback.

NCCUAPAB will provide advice to the executive committee member Agriculture, livestock and fisheries on promotion of agricultural activities.

6.0 IMPLEMENTATION FRAMEWORK

POLICY CONCERNS	APPROACH	RESPONSIBILITY	TIME FRAME	INDICATORS
Land use	(i) Promote use of appropriate agricultural technologies that are suitable for reduced land for agriculture e.g. use of hydroponics, high value and land intensive crops and livestock enterprises.	KARI, CIP, ILRI, Institutions of Higher Learning, NCCALF, NCEWEFNR	4th year	(i) Increased yields (ii) Number of technologies
	(ii) Set aside land and investment in technologies for county waste management while capacity building in use of simple technologies that can be applied by farmers	NCCLHPP, NCCALF, NCEWEFNR	5 th Year	Solid waste disposal and effluents discharge
	(iii) Integration of UPALF as a component of urban land planning by the Nairobi county Government. For example, land should be zoned so that irrigation activities can take place next to treatment plants to allow use of treated sewage.	NGOs, NEMA, NCEWEFR, NCCALF, NCCLHPP, NCCPHS	5th year	Additional area under UPALF
	(iv) Development of a framework for improving access and use by farmers to idle/unutilized land for agricultural production	NCCALF, NCCLHPP, Legal Office	2nd Year	UPALF Departments established Additional area under UPALF

POLICY CONCERNS	APPROACH	RESPONSIBILITY	TIME FRAME	INDICATORS
Safety of UPAL Practice and Products	(i) Promote and build capacity on good agricultural practices and enhance quality control in feed formulation and safe use of agrochemicals	NCCALF, PCPB, HCDA, KDB, KEBS, Producer organizations, NCCPHS	3 rd year	Quality of food and feeds marketed
	(ii) Develop mechanisms for coordinated enforcement of product safety, traceability and standards	HCDA, KEPHIS, KEBS, FPEAK, DVS, NCCPHS, KDB	3 rd year	Good agricultural practices
	(iii) Put in place measures to curtail use of waste water for crop, fish and livestock production while encouraging use of treated waste water	NEMA, NCCALF, NCCPHS, NCCEWEFNR	2 nd Year	Increased use of treated water in agricultural practices
	(iv) Establish mechanisms to ensure regular and effective inspection and control the use of agrochemicals and veterinary drugs	PCPB, Drugs and Poisons Board, NCCALF	2 nd Year	Reduced residues in food and cases of poisoning
	(v) Enforcement of Industrial and Public Health Acts to curb discharge of industrial effluent into the open and to ensure food safety.	NEMA, KEBS, NCCPHS	2 nd year	Registration of chemical dealers
	(vi) Strengthen surveillance to ensure feeds are sourced from credible sources	NCCALF, KEBS	1 st year	High quality feeds and yields
	(vii) Advocacy and sensitization of consumers to make informed choice about safe food	NCCALF, Kenya Consumer Network, NGOs	2 nd Year	Increased awareness and informed choices by consumers

POLICY CONCERNS	APPROACH	RESPONSIBILITY	TIME FRAME	INDICATORS
<p>Technology development and dissemination</p>	<p>(i) Promote public-private partnership to commercialize developed technologies.</p>	<p>NCCALF, KARI, NGOs, Universities, KEPSA,</p>	<p>3rd year</p>	<p>(i) Partnerships developed and more technologies commercialized</p>
	<p>(ii) Promote collaboration between research, public and private extension service providers to develop appropriate technological packages that are demand driven and beneficiary led.</p>	<p>CGIAR Research Institutions, CBOs, Beneficiaries</p>	<p>1st year</p>	<p>Improved technology adoption and increased yields</p>
	<p>(iii) Enhance budgetary support for research and extension for UPALF activities.</p>	<p>Nairobi city county government, Development Partners, Private Sector, NGOs</p>	<p>2nd year</p>	<p>Increased research and UPALF extension activities</p>
	<p>(iv) Invest in capacity building for extension service providers, research and extension clientele.</p>	<p>Nairobi city county government, CGIARs, Universities, KARI, KEMRI</p>	<p>3rd Year</p>	<p>Increased productivity</p>
	<p>(v) Promote and strengthen linkages and networking between research institutions, extension service providers and other stakeholders.</p>	<p>Research Institutions, Nairobi city county government, NGOs, CBOs, NCST</p>	<p>1st year</p>	<p>Linkages and networks promoted and strengthened</p>

POLICY CONCERNS	APPROACH	RESPONSIBILITY	TIME FRAME	INDICATORS
Environmental pollution	(i) Sensitize the UPALF stakeholders on the dangers and risks associated with environmental pollution.	NCCALF, NCCPHS, NCCWEFNR, NEMA, , NGOs, NCCICEG	1 st Year	Adoption of sustainable UPALF practices
	(ii) Review and develop new regulations to bridge existing gaps and enhance coordinated enforcement of existing laws on environmental conservation.	NEMA, NCCWEFNR, NCCPHS, Legal Office and other regulatory agencies	4 th Year	Reduced incidences of violations and number of prosecutions
	(iii) Build capacity of lead agencies; improve partnerships and networking for dealing with environmental concerns.	Nairobi city county government, KARI, Universities, CGIARS, NGOs, NCCALF, entrepreneurs, UNEP	4 th Year	Coordinated implementations of UPALF programmes
	(iv) Explore opportunities and promote investments in agricultural waste management through public-private sector players.	NCCWEFNR, NCCALF, KEFRI, NEMA, Private sector, CBOs, Development partners	6 th Year	Investment in waste management
	Promote good agricultural practices, and improve public awareness on the same through increased extension and advocacy by implementing agencies.	Development partners, Private sector, NGOs NCCALF, Research, NGOs	2 nd Year	Improved quality of agricultural produce

POLICY CONCERNS	APPROACH	RESPONSIBILITY	TIME FRAME	INDICATORS
Crop, Fish and Livestock Production	(i) Develop, disseminate and promote adoption of appropriate technologies through partnerships	KARI, CGIARS, NCCALF, NGOs, CBOs, KEMFRI	4 th Year	Increased production and productivity
	(ii) Strengthen crop, fish and livestock disease surveillance and control of livestock movement	NCCALF	1 st Year	Reduced disease prevalence and increased productivity
	(iii) Enforce laws on pesticide, fertilizer and animal feeds quality and disposal of industrial chemicals and farm chemicals	PCPB, NEMA, NCCALF, NCCPHS	2 nd Year	Sustainable agricultural and waste disposal practices
Provision of Support Services	(i) Form and strengthen producer organizations for UPALF activities to enhance access to credit, markets and other support services.	NCCALF, NCCTICTW, NGOs, CBOs, NCCEGGYSS, Private sector	3 rd Years	Improved service delivery, improved productivity
	(ii) Liaise with relevant Nairobi city county Government agents and investors to improve access to roads, light railway, sale yards, slaughter houses and cold stores.	NCCALF, NCCPWI, NCCLHPP, NCCTICTW	7 th Year	Improved marketing of products
	(iii) Improve crop, fish and livestock diseases surveillance and enforce existing legislation related to disease control.	NCCALF, NCCPHS, NCCICEG	1 st Year	Reduced disease prevalence and increased productivity

POLICY CONCERNS	APPROACH	RESPONSIBILITY	TIME FRAME	INDICATORS
	(iv) Build the capacity various support service providers and beneficiaries including advocacy and sensitization to the farmers on the benefits of e-commerce.	Universities, NGOs, Producer Groups, Consumer Groups	3 rd Year	Improved production, productivity and marketing
	(v) Encourage more players in provision of breeding services thereby making such services readily available and affordable.	NCCALF	3 rd Year	Improved production, productivity and marketing
Policy, legal and regulatory	-Review, development and implementation of regulatory framework that is supportive of UPALF by relevant public and private institutions -Coordinated enforcement of existing regulatory framework that relates to matters that touch on the sector in order to maximize synergies.	Nairobi city county government	Continuous process	Number of supportive subsidiary legislations enacted.

POLICY CONCERNS	APPROACH	RESPONSIBILITY	TIME FRAME	INDICATORS
Markets and Marketing	(i) Strengthen existing and promote formation of new commodity based producer and consumer organizations.	NCCALF, NCCTICTW, CBOs, NGOs	3rd Year	Improved synergies and capacity for informed choices
	(ii) Establish and improve market information exchange systems.	NCCALF, CBOs, NGOs, ICT, HCDA, LMC	2 years	Improved bargaining power, commodity prices and improved distribution of products
	(iii) Develop mechanisms for coordinated enforcement of product and market standards by stakeholders.	NCCALF, NCCPHS, KEPHIS, KEBS, KDB, NEMA,	4 th year	Improved product quality and value for money
	(iv) Promote product differentiation to meet market needs.	NCCALF, NGOs, KMC, KDB, CBOs, KEBS, NGOs,	2 nd Year	Wider product choice
	(v) Establish modern wholesale satellite markets at strategic locations.	Nairobi city county government Development Partners	10 years	Consolidated wholesale and retail distribution Improved product quality access and value for money
	(vi) Modernize existing and built additional markets to meet rising modern market needs.	Development Partners, CCTICTW, NCCALF, NEMA, NCCPHS	10 years	Improved product quality and access

POLICY CONCERNS	APPROACH	RESPONSIBILITY	TIME FRAME	INDICATORS
	(vii) Increase designated slaughter and processing facilities for small stock, fish and game	NCCALF, NEMA, NCCPHS	5 th Year	Improved product quality and accessibility
	(viii) Enforce regulations to control informal marketing and slaughter of small stock	NCCALF, NEMA, Inspectorate	5 th Year	Improved product quality and accessibility
	(ix) Discouraging informal marketing of UPALF products through establishment of designated food courts, cottage industries and mainstreaming them into formal marketing	NCCALF, NCCPHS, NCCTICTW, Producer Organizations, KCN, NGOs	5 th Year	Access to quality food

APPENDIX

I Kenya Laws with Implication on UPALF

1. Local Government Act, Cap 265
2. Animal Diseases Act, Cap 364
3. Public Health Act, Cap. 242
4. Land Control Act, Cap 302
5. Agricultural Act, Cap 318
6. Land Control Act, Cap 302
7. Physical Planning Act, Cap 286
8. Science and Technology Act, Cap 250
9. Environmental Management Coordination Act, 2000
10. Fisheries Act, Cap 378
11. Horticultural Crops Development Authority Order, 1967 (Legal Notice No. 229/1967).
12. Standards Act, Cap 496
13. Kenya Plant Health Inspectorate Service Order, 1996
14. State Corporations Act, Cap 446
15. Registration of Tittles Act, Cap 281
16. Government Lands Act, Cap 280
17. Registered land Act, Cap 300
18. Draft National Land Policy, 2009
19. Land Tittles Act, Cap 251
20. Sectional Properties Act, No. 2 of 1987
21. Draft Nairobi Metropolitan Bill, 2009
22. Fertilizers and Animal Feedstuffs Act, Cap 345
23. Urban areas and Cities Act No. 13 of 2011
24. Constitution of Kenya 2010
25. The County Government Act of 2012

II Institutions Involved in UPALF Activities

1. Nairobi City County government sector ministries
2. Nairobi Water and Sewerage Companies
3. Universities
4. Kenya Agricultural Research Institute
5. National Environmental Management Authority
6. Urban Harvest
7. Community Based Organizations
8. Financial Institutions
9. Non-Governmental and Faith Based Originations
10. Horticultural Crops and Development Authority
11. The Kenya Dairy Board
12. Kenya Meat Commissions
13. Producers, Traders, Processors' and Associations
14. Local and International Research Organizations
15. Universities and Colleges of Agriculture
16. Kenya Bureau of Standard (KEBS)
17. Kenya Plant Health Inspectorate Services (KEPHIS)

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