

COUNTY GOVERNMENT OF MERU



MAUI MUNICIPALITY

THE SOLID WASTE MANAGEMENT POLICY PAPER, 2024

## **FOREWORD**

I have the pleasure to represent this Maua Municipality Solid Waste Management Policy. The policy is a conscious demonstration of the County Government of Meru appreciation for sustainable development and environmental sustenance. This policy will aim at advancing Maua Municipality towards realization of a circular economy, a cleaner, healthier environment and wealth generation. It will catapult the municipality to achieve the principle of zero waste where waste generated will be repurposed into products that minimize it. The policy will champion reduction of waste, separation of waste at source, then subjected to re-use and recycling in which the remaining waste streams will be destined to sanitary disposal site. Effective management of waste will create value through re-using, recycling while giving waste pickers a source of livelihood, improve management of the land fills including capturing and utilizing gases such as methane.

The Kenya Constitution 2010, created a devolved system of government which bore great aspirations for the people of Kenya to achieve for themselves the highest level of development at the local level. It paved way for the enactment of legislations that effected the decentralization of both political and economic power to the lower tier government units. This includes the Urban Areas and Cities Act of 2011, amended in 2019. This legislation has paved way for management of urban centers in a logical hierarchy of importance based on criterion.

Maua municipality was thus issued with a charter to manage the affairs of the municipality through an appointed Municipal Board and Municipal Manager. They are thus responsible for the implementation of this policy. The policy has been crafted to ensure that the implementation of the Integrated Strategic Urban Development Plan for Maua, as well as ensuring that the municipality fulfils its mandate in solid waste management effectively. The policy has been subjected to extensive public participation as well as stakeholder engagement, and therefore its implementation will be a collective responsibility.

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## **ACKNOWLEDGEMENT**

The Maua Municipality wishes to register its appreciation to all those who were involved in the preparation of this solid waste management policy. The team takes the opportunity to specially acknowledge the unrelenting efforts portrayed by all the technical persons who were involved this noble process of shaping the future of our municipality. We are indebted to the office of the Governor for the unwavering support accorded to this process with great insights into drafting this policy. Special thanks also go to the CECM for Lands for and the chief officer for their strategic guidance and leadership in this policy preparation process. I specifically thank all resource persons from the technical officers for steering this process to completion.

Furthermore, we appreciate the partnership with various stakeholders for their guidance in the policy preparation process and hope that our relationship will be strengthened now and in the future.

The completion of this SWMP is a strong statement that the Maua Municipality has embraced the path to make Meru Happy.

**Mr. Timothy Mwenda**  
**Municipal Manager- Maua Municipality**

## **EXECUTIVE SUMMARY**

Municipality solid waste management policy (SWMP) is a five-year policy that provides for guiding framework for solid waste management within the municipality. The policy shall guide the municipal solid waste management actors providing effective, efficient, and sustainable services while utilizing solid waste as an economic resource.

The policy has been arrived and identified through rigorous process that involves public participation as the constitution, 2010 requires. It is divided into 6 chapters;

Chapter 1 this chapter introduces the baseline situation for the Maua Municipality. It encompasses the population, locational description, size, administrative and political units. It is basically an overview of the start off point in terms of socio-economic and infrastructural situation as at the baseline year of 2017.

Chapter 2 provides details on the waste streams, source of waste to the municipality and concepts on how to manage solid waste within the municipality. It also gives the description of solid waste from collection to disposal.

Chapter 3 provides and outlines the institutional framework that will be applied for the purpose of implementing the municipality solid waste management policy. The municipality is a semi-autonomous government agency established as per the requirements of urban and cities act of 2011. It describes not only the institutional arrangement to implement this policy, but also the resource requirements as well.

Chapter 4 provide for policy framework, goals, mission and vision.

Chapter 5 describes the monitoring and evaluation mechanism that the municipality will adopt to improve the effectiveness and quality of tracking of implementation of the solid waste management policy. This section illustrates how the institution shall measure performance and indicate the implementation progress.

Chapter 6 describes the implementation of the policy, staff capacity development and linkage to the National Government.

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# **CHAPTER 1: SOLID WASTE MANAGEMENT POLICY FOR MAUA MUNICIPALITY**

## **1.0 Introduction**

### **1.1 Maua Municipality**

Maua is located 60 km North of Meru Town on the northwestern slopes of Nyambene Hills and west of Meru National Park. Maua is the headquarters of Igembe South Sub-County and in the former Constitution, dispensation hosted a municipal council' (Under the new Constitution, Maua town was elevated back to a municipaloity in 2021, with a Municipal Charter and management board in place. Maua municipality has a population of 50,826, of whom 13,763 are classified as urban. Maua is one of the economically viable towns in Meru County. Ikweta Country Inn and Conference Centre, Soldat Teachers College and Methodists Nursing School are among the major landmarks in Maua.

Maua town is the center of the Khat trade in Kenya, and the world. Income from khat exports to Europe greatly dwindled when the United Kingdom (UK) among other European nations declared the stimulant a class C drug and banned all imports in June, 2014. Unusual for a town its size Maua has a wide mix of ethnicities, with Ameru, Somali, Kikuyu, Luo among the dominant residents.

### **1.2 Maua Municipal Board (MMB)**

Maua Municipal Board is established pursuant to Article 184 of the Constitution of Kenya and the Urban Areas and Cities Act CAP 275 of the Laws of Kenya. The first Municipal Board was inaugurated on December 2018 following the approval of the Municipal Charter by the County Assembly of Meru. This Board had nine members headed by the Chairman and the Municipal Manager who is the secretary and head of the Executive. The charter spells out the mandate of the Board and key among them being Solid Waste Management (SWM). The second Municipal board following an amendment of the Urban Areas and Cities Act, 2019

### **1.2.1 Mandate**

The Mandate of Maua Municipal Board is drawn from the Urban Areas and Cities Act CAP 275 of the Laws of Kenya and the Maua Municipal Charter.

The Mandate includes:

#### **Overseeing the affairs of the Municipality**

- ✓ Developing and adopting policies, plans, strategies and programmes, and setting targets for delivery of services.
- ✓ Formulating and implementing integrated development plan for the Municipality by controlling land use, land sub-division, land development and zoning by public and private sectors for any purpose, including industry, commerce, markets, shopping and other employment centres, residential areas, recreational areas, parks, entertainment, passenger transport, agriculture, and freight and transit stations within the framework of the spatial and master plans for the Municipality as may be delegated by the County Government.
- ✓ Promoting and undertaking infrastructural development and services within the Municipality as may be delegated by the County Government.
- ✓ Developing and managing schemes, including site development in collaboration with the relevant National and County agencies.
- ✓ Maintaining a comprehensive database and information system of the administration and providing public access thereto upon payment of a nominal fee to be determined by the Board.
- ✓ Administration and regulating of internal affairs
- ✓ Implementation of applicable National and County legislation



## **2.0 SITUATION ANALYSIS**

### **2.1 The Waste Management Problem**

Waste management remains one of the major environmental challenges facing most urban centers in Kenya today and Maua Municipality is no exception. Its lack of management therefore has had major implications to the health, Environment, Economy and the Society at large. Lack of good waste management affects negatively the environmental quality indicators such as aesthetics, ecology and human health. Reducing these negative impacts requires best practices in the way waste is generated, stored, transported and disposed.

Bad practices with negative impacts to air, water and soil quality need to be stopped. When materials are burnt, pollutants are released to the air, water soil and life support systems. These negative impacts need to be minimized by introducing best technologies and environmental practices.

Maua Municipality like many other urban areas in Kenya is facing a major challenge in SWM which require an elaborate policy framework for addressing it.

The Municipality is currently generating an average of 25 tons of solid waste per day The World Bank Report for African countries the Annual growth rate of waste generation is 2.09 %. Currently, it is estimated that the Municipality only about 60% of waste generated is collected and disposed. The Solid Waste Management (SWM) in the Municipality involve three stages and includes; Storage and Collection, Transportation and Final Disposal.

### **2.1 Waste Storage, Collection and Transportation**

The Municipality waste collection is carried out by county government trucks with cleaners, loaders and drivers staff.

In terms of frequency, daily Collection and transportation services are provided daily in zones 1& 2 and at least twice a week on the other zones. Garbage collection services in zone 1 &2 is carried out by the Town administration whereas the other zones are carried once weekly. The street cleaning services which accounts for much of the municipal wastes is also provided within the Maua CBD, Gaciongo and at Marigiti market.

Waste in the Municipality is largely collected by the County Governments including in residential areas.

## **2.2 Solid Waste Disposal Methods**

Waste disposal is a major environmental challenge in Maua town. The common methods practiced include open dumping, open burning, incineration of medical waste, informal waste picking. Of these methods, open dumping is the main mode of disposal in Maua town. Disposal site is located at Murera near the Meru National Park. The open disposal site has been in use since 1950's and has reached its optimum capacity. The facility is poses health and environmental threat to neighboring land uses especially Meru National Park. It is located 35km away from Maua Town.

## **2.3 Waste Recovery initiatives**

The Municipality's waste is generally organic (55.94%) with substantial quantities of valuable components which account for 42.67 % of waste generated. Some of the valuables category can be reused and recycled such as Paper, Cellulose material, plastic, rubbles and aggregate material such as glasses and metals. Informal waste recycling initiatives are carried out by waste pickers especially at the dumpsite and residential areas. There are a few formal wastes recycling initiatives in town and mainly engage in pre-processing and assemblage of recyclables waste. There is need to mainstream waste recovery and waste recycling and resue as part waste management strategy for the Municipality

## **2.4 Institutional Capacity for Solid Waste Management in Maua Municipality.**

The Environment unit which currently handles solid waste management matters in the Municipality does not have the requisite personnel for effective SWM operations. The unit has a workforce of 60 members of staff who are mostly not skilled to ensure effective delivery of quality service.

## **2.5 Financial Aspects**

As explained above, solid waste management consists of collection, transportation and disposal. The SWM service charges vary depending on the type of businesses. This is a

combined fee that caters for the cost of collection, transportation and disposal. An annual flat rate of Ksh 7,000 is charged on every plot owner of which many do not pay due to lack of proper mechanisms for follow up. Willingness of the people to pay for garbage collection services is therefore very low.

A system to make citizens pay for solid waste services cost directly to the Municipality through payment of the business permits should be explored to ensure that the service is paid for to enhance sustainability.

## **2.6 Public Participation**

Community participation in SWM is very low and this is shown by limited awareness and knowledge on the importance of a clean and healthy environment. As such, there is poor handling of waste at the household level including lack of segregation, reuse, reduce and recycling. In addition, negative attitude towards waste management and failure to take individual responsibility has contributed to poor practices such as littering, illegal dumping and open burning. These malpractices are common at the household level where residents indiscriminately dispose garbage haphazardly without due regard for the health and environmental implications.

## **2.7 Regulatory and Policy frame work on SWM**

The legal frameworks highlighted below are relevant to solid waste management in Kenya;

### **2.7.1 Constitution of Kenya**

In the Constitution of Kenya, Article 42 on the Environment provides 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.

Article 69 on Obligations to the Environment, the Constitution provides that - (1) The State shall:

(d) encourage public participation in the management, protection and conservation of the environment;

(f) establish systems of environmental impact assessment, environmental audit and monitoring of the environment;

(g) eliminate processes and activities that are likely to endanger the environment;

(h) utilise the environment and natural resources for the benefit of the people of Kenya.

(2) Every person has a duty to cooperate with State organs and other persons to protect and conserve the environment and ensure ecologically sustainable development and use of natural resources.

Part 2 of the fourth Schedule in the Constitution of Kenya also explicitly provides that the County Governments shall be responsible for; refuse removal, refuse dumps and solid waste disposal.

### **2.7.2 Vision 2030**

In Vision 2030, one of the flagship projects is the Solid waste management initiative which calls for relocation of the Dandora dumpsite in Nairobi and the development of solid waste management systems in five (5) leading municipalities and in the economic zones planned under Vision 2030. Location of SWM sites requires to be considered carefully due to environmental, health and sustainability concerns.

### **2.7.3 The Environmental Management and Coordination Act (EMCA), 1999**

Section 3 of EMCA, 1999 stipulates that- Every person in Kenya is entitled to a clean and healthy environment and has a duty to safeguard and enhance the environment.

Section 9 of EMCA, 1999 further states that- (1) The object and purpose for which the Authority is established is to exercise general supervision and co-ordination over all matters relating to the environment and to be the principal instrument of Government in the implementation of all policies relating to the environment.

(2) Without prejudice to the generality of the foregoing, the Authority shall –

(a) co-ordinate the various environmental management activities being undertaken by the lead agencies and promote the integration of environmental considerations into development policies, plans, programmes and projects with a view to ensuring the proper management and rational utilization of environmental resources on a sustainable yield basis for the improvement of the quality of human life in Kenya;

Section 86 of EMCA, 1999 provides that- The Standards and Enforcement Review Committee shall, in consultation with the relevant lead agencies, recommend to the Authority measures necessary to:

(2) prescribe standards for waste, their classification and analysis, and formulate and advise on standards of disposal methods and means for such wastes; or

(3) issue regulations for the handling, storage, transportation, segregation and destruction of any waste.

Section 87 of EMCA 1999 states that - (1) No person shall discharge or dispose of any wastes, whether generated within or outside Kenya, in such manner as to cause pollution to the environment or ill health to any person.

(2) No person shall transport any waste other than:

(a) In accordance with a valid licence to transport wastes issued by the Authority;

(b) To a waste disposal site established in accordance with a licence issued by NEMA.

(4) No person shall operate a wastes disposal site or plant without a licence issued by the Authority.

(5) Every person whose activities generate wastes shall employ measures essential to minimize wastes through treatment, reclamation and recycling.

#### **2.7.4 Environmental Management and Coordination (Waste Management) Regulations of 2006**

In the Responsibility of the Generator, Regulation 2 states that – Any person whose activities generate waste shall collect, segregate and dispose or cause to be disposed off such waste in the manner provided for under these Regulations.

Regulation 5 on the Segregation of waste by a generator state that – (1) Any person whose activities generate waste, shall segregate such waste by separating hazardous waste from nonhazardous waste and shall dispose of such wastes in such facility as is provided for by the relevant Local Authority.

#### **2.7.5 The Occupational Safety and Health Act, 2007**

The Occupational Safety and Health Act, 2007 Part IX, Chemical Safety, Section 83 Subsection

IV states that at every workplace where chemicals or other toxic substances are manipulated, the employer shall develop a suitable system for the safe collection, recycling and disposal of chemical wastes, obsolete chemicals and empty containers of chemicals to avoid the risks to safety, health of employees and to the environment.

#### **2.7.6 The Public Health Act, 2012**

The Public Health Act Revised Edition 2012, Part 126. Rules under Part, The Minister, on the advice of the board, may make rules and may confer powers and impose duties in connection with the carrying out and enforcement thereof on local authorities, magistrates, owners and others as to - (d) the drainage of land, streets or premises, the disposal of offensive liquids and the removal and disposal of rubbish, refuse, manure and waste matters

Section 134 - Rules for protection of food, The Minister, on the advice of the board, may make rules regarding all or any of the following matters - (h)the establishment, locality,

supervision, equipment, maintenance and management of slaughterhouses and the disposal of the waste.

Section 118 – on What constitutes nuisance - The following shall be deemed to be nuisances liable to be dealt with in the manner provided in this:

Part (c) any street, road or any part thereof, any stream, pool, ditch, gutter, watercourse, sink, water-tank, cistern, water-closet, earth-closet, privy, urinal, cesspool, soak-away pit, septic tank, cesspit, soil-pipe, waste-pipe, drain, sewer, garbage receptacle, dust-bin, dung pit, refuse-pit, slop-tank, ash-pit or manure heap so foul or in such a state or so situated or constructed as in the opinion of the medical officer of health to be offensive or to be injurious or dangerous to health.

Part (e) states that any noxious matter, or waste water, flowing or discharged from any premises, wherever situated, into any public street, or into the gutter or side channel of any street, or into any or watercourse, irrigation channel or bed thereof not approved for the reception of such discharge constitutes to be a nuisance.

Section 126 - Rules under Part, The Minister, on the advice of the board, may make rules and may confer powers and impose duties in connection with the carrying out and enforcement thereof on local authorities, magistrates, owners and others as to—part (d) the drainage of land, streets or premises, the disposal of offensive liquids and the removal and disposal of rubbish, refuse, manure and waste matters.

### **2.7.7 The County Governments Act, 2012**

Section 120, Tariffs and pricing of public services, subsection (3) A tariff policy adopted under subsection (1) shall reflect following guidelines — part (h) promotion of the economic, efficient, effective and sustainable use of resources, the recycling of waste, and other appropriate environmental objectives.

The County Government of Meru is expected to enact county-based Policies and legislation on solid waste management matters.

Generally, the municipality does not have an elaborate policy and legislation which address SWM matters adequately. The existing by -laws are obsolete and do not adequately provide for the integrated approach of handling SWM. The policy should encompass all aspects of SWM right from the generation to disposal including provision for waste minimization, composting, informal sector and private sector involvement.



## **3.0 THE POLICY INSTRUMENT**

### **3.1 Policy Statement**

Maua Municipal Board recognizes solid waste as a resource that should be managed so as to ensure a clean, safe and healthy environment for improved quality of life, promote ecological integrity and encourage economic vitality in a way that facilitates sustainability (as envisaged in the constitution of Kenya 2010)

### **3.2 Guiding Principles**

The implementation of this Policy will be guided by the following principles:

(i) Right to a clean and healthy environment: Under the Constitution, 2010 every person in Kenya has a right to a clean and healthy environment and a duty to safeguard and enhance the environment.

(ii) Right to sustainable development: The right to development will be respected taking into account economic, social and environmental needs. Kenya seeks to achieve people-centered development that builds human capabilities, improves people's wellbeing and enhances quality of life.

(iii) Principle of Environmental Protection: There is need to balance socio-economic development and environmental protection. In undertaking waste management, all entities and individual should provide high level of human, health and environmental protection.

(iv) Principle of Proximity: To minimize environmental impact and transport costs. In accordance to the principle of proximity, waste should be processed, treated and disposed as much as possible to the location of its generation.

(v) Precautionary Principle: The principle states that measures should be taken even if some causes and effect relationships are not fully established scientifically when an activity or product raises threats of harm to human health or the environment.

(vi) Polluter pays principle: The principle states that those who produce pollutants or waste should bear the costs of managing it to prevent damage to human health or the environment.

(vii) Zero Waste principle: The principle states that society should aim for zero waste, designing and managing products and processes that reduce and eventually eliminate the volume and toxicity of waste, to conserve and recover waste resources rather than to burn or bury them. The Waste hierarchy establishes preferred program priorities based on zero waste principle and sustainability. The standard outline of the hierarchy ranks 6 approaches to waste management. In order (most preferable to least preferable) these are: prevention, minimization, reuse, recycle (including composting), energy recovery and disposal.

(viii) Extended producer responsibility: The principle states that producers should be given significant responsibility financially and/or physical for the treatment or disposal of the waste from the products they create. Beyond easing government budgets for waste management, such responsibility in incentives companies to prevent wastes at the source, promoting more environmentally friendly product design and supporting the achievement of public recycling and materials management goals.

(ix) System of deposit: When buying certain products, the buyer shall pay a certain added value to the price of the product, which shall be returned to him/her upon restitution of the used products and the packaging to the seller, provided that there is a possibility for the used products and the packaging to be processed, for which they need to be labelled in a manner that is established by law and another regulation.

(x) Partnership: Building partnerships, collaboration and synergies among various stakeholders from the public, government, non-governmental organizations, civil society and private sector, as well as vulnerable communities and populations including women and youth, will be prioritized to achieve effective implementation of this Policy. The private sector will be encouraged to develop capacities for investment, construction and service delivery in recycling and waste management.

(xi) Devolution and Cooperative government: embracing a system of consultation, negotiation and consensus building in implementation of sustainable waste management between and within the National and County governments.

(xii) Equity and social inclusion: ensuring a fair and equitable allocation of effort and cost, as well as ploughing back of benefits in the context of the need to address disproportionate vulnerabilities, responsibilities, capabilities, disparities, and inter- and intra-generational equity. The communities that benefit from sustainable waste management shall be actively involved in planning and decision-making.

### **3.3 Policy Objectives**

This policy sets out the aim of the MauaMunicipal Board (MMB) to gain control over the waste generated. The policy will lend special emphasis on waste generators responsibility, private sector initiatives, and Solid Waste hierarchy

### **3.4The Integrated Solid Waste Management Strategy (ISWM).**

Waste management issues run across various aspects of our daily life from households to communities, cities, regions and country level. Each level is comprised of stakeholders that play a pivotal role to waste management system wherein activities of each directly affect the effectiveness of the system. Recent years have shown the increase of community-oriented approach towards waste minimization in many cities all over world. Partnerships among stakeholders have been built, bridging linkages between the formal and informal players in waste system in both public and private sectors.

As financing is one of the major constraints of many County Government agencies in Kenya to address waste problems, multi-stakeholder partnership is potentially one of the most viable solutions as it brings and taps in potential financial resources. The increase in participation of external agencies such as international and local organizations as well as private entities in solid waste management (SWM) has also contributed substantially to the inadequacies and limited administrative and technical capacities of county/local governments.

The increase in community-based approach in waste management is an encouraging feature in many cities in the world. However, many of these initiatives have placed bigger emphasis on waste disposal and recycling. Relatively little has been done to tackle urban organic wastes that generally represent over 50 percent of the total waste generation. Addressing this aspect would amount to achieve benefits for stakeholders like County governments as it induces savings on operational cost of waste transport and reduce the impact on disposal sites. Furthermore, it reduces waste collection and management costs and opens income opportunities for communities and households.

## **CHAPTER 4. POLICY INTERVENTIONS**

### **4.1 THE SOLID WASTE MANAGEMENT POLICY**

The overall aim of the Solid Waste Management policy for Maua Municipality is to enhance solid waste management for provision of a clean and healthy environment to the residents. As highlighted above the main solid waste management problems facing Maua Municipality include;

- ✓ Inefficient and ineffective solid waste collection and transportation system.
- ✓ Inadequate capacity in SWM
- ✓ Indiscriminate waste disposal
- ✓ Poor waste disposal and treatment.
- ✓ Inadequate stakeholder involvement in SWM
- ✓ Uncoordinated informal solid waste minimization activities.
- ✓ Inadequate systems for handling hazardous waste
- ✓ Inadequate financing mechanism for SWM
- ✓ Low coverage of waste collection services
- ✓ Irregular collection
- ✓ Inappropriate siting of disposal site

### **4.2 GOALS FOR SOLID WASTE MANAGEMENT**

1. Protection of public health
2. Reduction of poverty
3. Reduction of waste management costs
4. Protection of environment and ensure sustainable development

In order to achieve these goals, the following strategic objectives are proposed to improve solid waste management in entire Maua municipality;

- To improve waste collection and transportation efficiency and effectiveness.

- Promote waste management through the adoption of waste management hierarchy
- To promote proper waste disposal and treatment
- To reduce waste and maximize reuse and recycling
- To educate and sensitize the public on SWM.
- To promote solid waste recycling initiatives.
- To strengthen the institutional and organizational capacity in solid waste management
- To promote collect and dispose of hazardous waste sustainably
- Enact relevant legislation on SWM
- To formulate policies, legislations and economic instruments to reduce waste quantities
- To inculcate responsible public behavior on waste management
- To promote waste segregation at the source
- To promote resource recovery for materials and energy generation
- To establish environmentally sound infrastructure and systems for waste management

These issues will be addressed in the following section, with the identification of each problem, specific objectives and key actions.

**Objective 1: To Enhance Waste Collection and Transportation efficiency and effectiveness.**

Solid waste collection efficiency and effectiveness is hampered by Inaccessible roads, lack of payment for waste disposal services, lack of adequate zoning of waste collection areas,

poor scheduling of waste collection, low budgetary allocation for operations, Low investment in acquisition of compliant waste trucks and inadequate transport in which the available vehicles are old and which are always prone to breakdown leading to lapse in the provision of services. Waste collection at the house hold level where sorting of waste is not done.

**Proposed Policy Measures for Waste collection and Transportation.**

Waste should be transported in an environmentally sound manner without causing pollution or bad odor or further littering. A waste manifest system enables tracking of transportation of both hazardous and non-hazardous waste till it reaches its disposal destination.

A Waste management zoning plan provides that the framework for the municipality's spatial coverage of solid waste management is needed. This plan shall provide an enabling environment for the realization of public-private-partnerships through;

- ✓ Elimination of the problem of coordination, duplication of efforts by line departments and stakeholders as well as resources;
- ✓ Curb unhealthy competition by waste management stakeholders;
- ✓ Reduce long travel routes from one customer to the next and thus increase level of service provision through benchmarking;
- ✓ Act as basis for waste commercialization i.e. franchise depending on the capacity and level of technology required.

The policy will also seek to embrace the Involvement of community groups and private sector in waste collection and transportation

**Policy statements**

The board shall:

Review the existing waste collection zoning plan to ensure effectiveness and efficiency in the operational areas.

Enhance waste collection and transportation capacity

Ensure that waste service handlers transport their waste to materials recovery facility and to a landfill.

Ensure waste transportation trucks adhere to air quality regulations.

Develop guidelines requiring all legal entities or individuals transporting waste within the municipality provide tracking documents of source and destination.

Ensure that transportation of recycled materials and waste should be conducted in an environmentally sound manner.

### **Objective 2: Promote waste segregation at source**

Waste segregation includes all measures to ensure quality of materials extracted from waste and reprocessed is maintained for the realization of maximum value of resources and environmental protection from waste.

The following policy measures shall apply to waste segregation.

#### **Policy statements**

- ✓ Enforce waste segregation regulations at source based on the national gazetted minimum waste fractions for all waste generators including household level.
- ✓ Ensure separate waste segregation containers are provided to enable sorting at source of organic waste, recyclable and non-recyclables and educate the waste generators on the prescribed sorting categories and methods.
- ✓ Carry out public awareness on waste colour codes and importance of proper sorting in all public labelled bins for easier sorting

### **Objective 3: Promote waste management through the adoption of waste management hierarchy**

#### **Proposed Policy Statements**

This policy sets priority order for managing waste as a resource that should be harnessed in the municipality according to the waste management hierarchy by adopting the following policy measures.



The board shall:

- ✓ In liaison with County Government align County waste management laws and strategies to the waste management hierarchy.
- ✓ Prioritize waste prevention and minimization in conformance to the waste hierarchy when developing waste management plans and legislation.
- ✓ Liaise with the County Government of Meru to set aside sufficient land for waste management activities, and generate jobs and livelihoods from waste collection, recycling, and waste management activities according to the waste hierarchy.
- ✓ Establish and improve waste management infrastructure to promote source segregation, collection, reuse, set up materials recovery facilities and controlled disposal in engineered landfills.
- ✓ Provide well managed central collection centers for materials that can be harvested from waste and can be reused.
- ✓ In consultation with County Government institute county regulations to require institutions to ensure that at least 50% of their produced waste is recycled through a licensed service provider
- ✓ In consultation with County Government, identify and prioritize potential and financial requirements of setting up composting plants and technology in the municipality.
- ✓ Establish clear procedures for providing incentives to encourage private sector participation in composting ventures
- ✓ Ensure the recyclers, bio-waste processors and material recovery facilities shall obtain environmental compliance licenses from NEMA.
- ✓ Develop a 3-year plan to transit from the current Open dumpsites and adopt land filling for residual waste.
- ✓ Initiate the process of closure of open dumpsites and establish engineered landfills for disposal of non-recoverable fractions of wastes.
- ✓ Promote the establishment of incineration (waste-to-energy programs)

#### **Objective 4: To Educate and Sensitization the Public on SWM.**

Negative attitudes and lack of cooperation from the community on SWM and environmental cleanliness is a major constraint towards achieving sustainable SWM in Maua Municipality. Consequently, a lot of illegal dumpsite and indiscriminate disposal of wastes along the streets, alleys, river banks, and open spaces and undeveloped land is a norm rather than the exception.

#### **Policy statements**

The board shall;

- ✓ Undertake community awareness and sensitisation programmes for sustainable SWM service provision.
- ✓ Training and sensitization of leaders and staff on SWM.
- ✓ Institute clean up days.

#### **Objective 5: To promote community small scale waste management initiatives**

The income earned by the informal waste pickers is extremely low for long hours of work. This is attributed to exploitation by brokers, lack of access to market and inadequate flow of information on market dynamics. Moreover, the Private Collectors and municipal refuse collection crew has a better waste recovery opportunity than their counterparts in the informal sector because they have access to key waste production points in the town as well as transportation facilities.

The policy shall initiate community-based waste management programmes to offer low and middle-income earners in the municipality low-cost and effective waste management system. This system shall encourage:

- ✓ Direct community-member engagement and accountability
- ✓ Tracking of waste collection and reduction
- ✓ Segregation of waste at the household level
- ✓ On-site utilization of valuable and reusable items

- ✓ Composting of organic waste
- ✓ Collection and transportation of waste to a treatment site by a public collection service.

## **Objective 6: To Strengthen the Institutional and Organizational Capacity in Solid Waste Management**

### **Policy Measures on Strengthening the Institutional Framework**

The reason for low collection includes insufficient financial outlays, shortage of vehicles, inappropriate employment and allocation of staff and lack of proper planning and systematic approach by the Environment Unit. The shortcomings of the SWM programme in Maua Municipality are also contributed partly by inadequacy of political and institutional support on SWM in the past. Consequently, SWM is not adequately prioritized by the County as well as National government in allocation of funds for purchase of facilities, equipments and operational costs.

### **Policy statements**

The Board shall:

- ✓ Ensure adequate financial provision for SWM services
- ✓ Establish SWM unit with adequately trained personnel and equipment
- ✓ Develop municipal waste management plans which are aligned to this policy.
- ✓ Ensure that waste service providers are trained and licensed including collector and transporters.
- ✓ Build capacity among the stakeholders on proper waste management

**Objective 7: To enhance proper handling, collection and disposal of hazardous wastes.**

The municipality does not have an adequate policy to address hazardous waste and medical waste. Medical waste is collected for treatment at the County referral hospital and with the increased generation of such wastes, their capacity may be overwhelmed in future.

**Policy statements**

The board shall;

- ✓ Enact legislation to provide guidelines for handling hazardous wastes at the municipality level

**Objective 8: Enhance Financial Mechanism for SWM**

**Policy Statements**

The board shall;

- ✓ Liaise with County government to ensure that adequate resources are allocated for sustainable waste management actions in county budgetary processes and solicit for donor support.
- ✓ Build capacity to mobilize and enhance absorption of resources for sustainable waste management interventions.
- ✓ Promote the creation of green jobs by establishing and enabling policy framework for investment, creating business friendly regulatory environments in recycling, green economy, and sustainable waste management.
- ✓ Support waste management enterprises at the Municipality level, including those that are run by vulnerable and marginalized Groups.
- ✓ Oversee sector specifics; anti-corruption, transparency, accountability and integrity mechanisms to safeguard prudent management of finances.
- ✓ Waste generators including individuals and households shall contribute to the cost of waste management services

### **Objective 9: Maintain a data base on SWM in the municipality**

The Municipality's ability to respond effectively to the waste challenge requires enhanced data collection on waste generation, current waste disposal practices, waste minimization, reuse and recycling opportunities, as well as the impacts of the current poor state of waste management on public health and the environment.

#### **Policy statements**

The board shall

- ✓ Set up data collection system of the Municipality waste streams, volumes generated and how they are handled.
- ✓ Register service providers to ensure that all policy and regulatory decisions at the Municipality level are informed and are based on credible data.
- ✓ Incorporate waste management indicators into the Municipality's Integrated Monitoring and Evaluation System

### **Objective 10: Promote research and technological knowledge on solid waste management**

Waste management is a dynamic paradigm and requires consistent research and innovation as new waste streams are released regularly. Universities and research institutions play a critical role in generating data to guide decision making as well as innovation development. Currently, there is inadequate research being carried out on waste management.

#### **Policy statements**

The board shall;

- ✓ Establish linkages with the government, academia, private sector, civil society and global sustainable waste management innovation institutions.
- ✓ Identify research and technology needs for enhancing SWM in the municipality.

## CHAPTER 5: MONITORING AND EVALUATION

Poor solid waste management has direct and indirect effects to the public health and the environment and therefore monitoring and evaluation is an integral component. The MEAL system adopted for this policy is designed to provide feedback to stakeholders to ensure accountability, transparency, facilitate appropriate decisions on future implementation and review of the policy to ensure that the input delivery, work, schedules and targets outputs are progressing according to plan.

This policy shall be evaluated in accordance with overall municipal monitoring and evaluation framework, standards and system. The following requirements shall apply in regard to policy monitoring and evaluation:

- a) The municipality shall designate staff to be responsible for coordinating monitoring and evaluation of implementation of policy.
- b) In each period of 6 months, municipality shall prepare a report on the progress made in implementing the policy, which shall be submitted to municipal board for consideration and decision-making.
- c) There shall be a policy review in 3 years or as need arises which shall involve all solid waste management stakeholders. The review shall provide feedback on successes, progress and challenges related to policy implementation and whether policy outcome have been met in each year. The policy review report shall be submitted to municipal board for consideration and decision-making.
- d) The policy shall be evaluated at the end of each period of 5 years to assess the extent to which policy outcomes have been realized including policy impact.
- e) The municipality shall disseminate policy evaluation.

The policy stresses effective MEAL to ensure sustainable, transparency, accountability, and professionalism at all levels.

The information will then be linked to the population trends, economic growth and other social monitoring parameters and thereby provide basis for policy reviewing and planning of future waste management needs. The information will also inform on the effectiveness and relevance of the policy.

## **CHAPTER SIX: POLICY IMPLEMENTATION**

### **6.0 Planning and Performance Management**

Implementation of the policy shall be undertaken through development of environment sector (or sectoral plan dealing with solid waste management). In accordance with the county government act, the environment sectoral plan shall be part of the county integrated development plan (CIDP 2018- 2022). The county medium term expenditure framework (MTEF) and the County Fiscal Strategy Paper shall be adequately cover the strategies and programs provided under the environment sectoral plan. The plan shall be implemented annually through the annual development plan.

Implementation of this policy shall be integrated with the municipal performance management system through the sectoral plan. The annual performance contracting and targets for respective departments responsible for implementation of this policy shall be aligned to activities and programs in the environment sectoral plan so as to ensure complementarily and intersectoral approach in implementing this policy. Data related to policy implementation shall be collected on a continuous basis in order to inform decision making by the municipal board and other stakeholders.

### **6.1 Legal and Administration Reforms**

In addition to programs and projects to be designed under the environment sectoral plan (or sectoral plan dealing with solid waste management), appropriate legal reforms related to solid waste management shall be undertaken.

There shall be prepared for enactment or adoption laws, guidelines, standards and frameworks. Key among them shall be enactment of municipal solid waste management bill

### **6.3 Collaboration With National Government**

As stipulated under the article 6 and 189 of the constitution, the county government shall institute measures to cooperate, collaborate, consult, and partner with the National Government in implementing the policy as well as implementing national polices, laws and standards related to SWM. In this regard, the department responsible for SWM shall initiate intergovernmental collaboration mechanisms with the national government ministry of environment and other agencies responsible for matters related to environment.

## **6.4 Staff Capacity Development**

The department responsible for SWM shall in collaboration with the department responsible for human resources management and the County Public Service Board resource the department as well as other county departments responsible for implementing this policy, with highly qualified professional staff in line with respective policy measures. In addition, the department responsible for SWM and the department responsible for human resource management shall develop and facilitate continuous professional and capacity development for all relevant officers in various departments responsible for implementing this policy.



### ANNEX 1 - SOLID WASTE MANAGEMENT POLICY- IMPLEMENTATION MATRIX.

No	objective	Key actions	Responsible Agency	Time frame
1	To enhance solid waste collection and transportation services in Maua municipality	<ul style="list-style-type: none"> <li>✓ Review the existing zoning plan to ensure effectiveness and efficiency in the operational areas.</li> <li>✓ Provision of appropriate SWM vehicles and equipment.</li> <li>✓ Promoting an Enabling Framework for Public Private Partnership (includes the private and community groups.</li> <li>✓ Establish community committees to oversee SWM operations especially at the household level.</li> </ul>	<p>MMB Board</p> <p>MMB Board</p> <p>MMB Board</p> <p>MMB Board</p> <p>MMB Board</p> <p>MMB Board</p>	<p>2 Years</p> <p>2 years</p> <p>2 years</p> <p>2 Years</p> <p>2 Years</p> <p>2 Years</p>
2.	Public awareness and education on SWM.	<ul style="list-style-type: none"> <li>✓ Conduct public awareness campaigns on Proper SWM.</li> <li>✓ Designate clean- up days for whole town (for instance first or end week of every month or quarterly).</li> <li>✓ Hold workshops, seminars on SWM</li> </ul>	<p>MMB Board,</p> <p>County Government of Meru, NEMA, CBOs and NGOs</p>	<p>Monthly</p> <p>(Every Year)</p>
3	Promote waste segregation at source	<ul style="list-style-type: none"> <li>✓ Enact county regulations to promote waste separation at source</li> <li>✓ Promote waste separation and sorting at household level.</li> </ul>	<p>MMB Board, County Government of Maua &amp; County Assembly of Meru</p> <p>MMB Board</p>	<p>3 years</p> <p>3 years</p>

		<ul style="list-style-type: none"> <li>✓ Install litter bins to control littering and promote waste separation</li> <li>✓ Enact and enforce SWM by-laws to support waste separation and sorting.</li> <li>✓ Identify sufficient land for waste management activities</li> <li>✓ Establish small-scale recycling plants</li> <li>✓ Organize and formalize informal waste entrepreneurs into cooperatives/SMEs.</li> <li>✓ Promote wastes composting</li> </ul>	<p>MMB Board</p> <p>MMB Board &amp; County Government of Meru</p> <p>MMB, County Government of Meru, NEMA, CBOs and NGOs</p> <p>MMB, County Government of Meru</p> <p>NEMA, CBOs and NGOs</p>	<p>1 Year</p> <p>2 years</p> <p>2 Year</p> <p>1 years</p> <p>3 Years</p>
4	Improving waste disposal and treatment	<ul style="list-style-type: none"> <li>✓ Rehabilitate existing disposal site</li> <li>✓ Initiate the process of closure of open dumpsites and establish engineered landfills for disposal of non-recoverable fractions of wastes.</li> <li>✓ Introduce controlled tipping system practices at the disposal sites to remove mal odors, litter and other nuisance and to minimize the problem of flies and vermin.</li> <li>✓ Promote waste to energy technologies and investment ventures through fiscal incentives and infrastructure development.</li> </ul>	<p>MMB &amp; County Government of Meru</p> <p>MMB</p> <p>MMB</p> <p>MMB Board &amp; County Government of Meru</p>	<p>2 Years</p> <p>2 Year</p> <p>2 years</p>

5	To strengthen institutional capacity	<ul style="list-style-type: none"> <li>✓ Recruitment of additional staff</li> <li>✓ Staff training on SWM</li> <li>✓ Improvement of working conditions</li> </ul>	MMB Board & County Government of Meru	2 years
6	Proper handling of hazardous wastes	<ul style="list-style-type: none"> <li>✓ Promote waste separation at source.</li> <li>✓ Provide incineration services.</li> <li>✓ Contract private sector firm that specializes in handling and disposal of hazardous wastes</li> </ul>	MMB Board & County Government of Meru	2 years
7	Improved street, drainage, market and parks cleaning services	<ul style="list-style-type: none"> <li>✓ Provision of adequate litter bins on strategic positions in town.</li> <li>✓ Provide additional labor.</li> <li>✓ Ensure regular litter collection.</li> <li>✓ Enforce SW by-laws to discourage littering.</li> </ul>	MMB Board	2 years
8	Promote community-based waste management initiatives	<ul style="list-style-type: none"> <li>✓ Encourage and promote the formation of small and micro waste enterprises at neighbourhood level.</li> <li>✓ Provide training to the small-scale entrepreneur on SWM</li> <li>✓ Provide space or land for community groups engaged in SWM activities.</li> <li>✓ Establish strong partnership with waste cycling industries (to provide market facilities for their products)</li> </ul>	MMB Board, County Government of Meru NEMA, CBOs and NGOs	3 years

9	<b>Promote research and technological</b> knowledge on solid waste management	<ul style="list-style-type: none"> <li>✓ Establish linkages with the government, academia, private sector, civil society and global sustainable waste management innovation institutions</li> <li>✓ Conduct study on SWM</li> <li>✓ Waste classification (characterization and analysis)</li> <li>✓ Waste minimization potential.</li> <li>✓ Marketing potential for the recyclables.</li> </ul>	MMB Board	5 years
10	Maintain a data base on SWM in the municipality	<ul style="list-style-type: none"> <li>✓ Set up data collection system of the Municipality waste streams, volumes generated and how they are handled</li> <li>✓ Incorporate waste management indicators into the Municipality's Integrated Monitoring and Evaluation System</li> </ul>	MMB Board	2 Years
11	Financial aspects	Ensure that adequate resources are allocated for sustainable waste management actions	MMB Board, County Government and Donor agencies	5 Years

Develop a 3-year plan to transit from the current Open dumpsites and adopt land filling for residual waste.

## **LIST OF REFERENCES**

1. NEMA, The National Solid Waste Management Strategy, 2015
2. www. <https://sensoneo.com/waste-library/best-zero-waste-projects/>
3. <https://www.green.earth/waste-management>
4. The world Bank, Behaviour Change in Solid Waste Management- A Compendium of Cases, 2023