

**REPUBLIC OF KENYA**



**MANDERA COUNTY GOVERNMENT**

**MANDERA MUNICIPALITY**

**Integrated Solid Waste Management Strategy for Mandera Municipality**

**June 2018**

## **FOREWORD**

Solid waste management remains a major challenge in the Municipality. The impact of the indiscriminate solid waste disposal continues to adversely affect the environment. It is against this background that the county through Mandera Municipal Board has developed an integrated solid waste management strategy which will also incorporate the emerging issues in the management of solid waste.

The purpose of this policy is to provide a framework to address solid waste problem in the municipality and aim at achieve reduction of waste generation. It will also ensure that the Municipality, in collaboration with other stakeholders, is able to sustain the provision of adequate quality services in waste management.

The policy will assist the municipality in the provision of quality service in solid waste management as one of the core functions especially in guiding the board in implementing solid waste management programs to facilitate effective and appropriate response to solid waste management challenges. This policy is also an affirmation of the Board's commitment to intensify its campaign against improper disposal of solid waste onto the environment and ensure a harmonized waste management in the municipality. The ultimate goal of this policy is to guarantee the residents of Mandera municipality a clean, healthy and safe environment as enshrined in the constitution.

I wish to thank the representatives for various departments in the County for their effort and commitment in the development of this policy. I also wish to thank all stakeholders who participated in one way or another in making the plan.

Mr. IBRAHIM HASSAN MALOW

**CHAIRMAN**

**MANDERA MUNICIPAL BOARD**

## **PREFACE.**

Solid waste management remains the greatest challenge to the Mandera Municipal Board in its endeavor to provide a clean and healthy environment to the residents of Mandera municipality. In this respect, the board has demonstrated both concern and commitment by taking concrete steps in the management of solid waste in the entire county.

As a sign of this commitment, the Board has prepared this strategy plan for solid waste management. The plan addresses the Municipality's solid waste management needs through illustration of the methods by which the municipality will handle all types waste generated within its area of jurisdiction. The policy will focus on enhancing solid waste collection, disposal and waste reduction.

The Municipality's solid waste management document builds on the previous planning efforts and describes methods for expanding the waste management programs in the Municipality. In this manner, the policy is intended to serve as a management instrument for the board. Still, portions of the document discuss joint efforts with other partners and neighboring jurisdictions, as well as public/private partnerships.

The plan emphasize the need for integrated solid waste management approach that meet sound economic and environmental objectives which often require waste types that are generated individually to be kept separated throughout the collection, processing, recovery and disposal sequence. Previous practices had all waste types mixed in the management cycle, which resulted in health and environmental hazards and hindered reuse and recovery of the resources

Finally, I wish to extend my deepest gratitude to all those who participated in coming up with this policy. It is an opportune time for all those concerned to live up to the guidelines outlined in this policy. When fully implemented, it will yield a better environment for all residents of Mandera Municipality. My gratitude also goes to my colleagues who gave critical comments towards finalization of this policy. My call is for all of us to cooperate in delivering quality and efficient service to the County citizenry through this policy.

Mr. HASSANNOOR ADAN ABDULLAHI  
**MUNICIPAL MANAGER/SECRETARY**

**MANDERA MUNICIPAL BOARD**

## **ABBREVIATIONS**

CBD	Central Business District
CBOs	Community Based Organizations
CSOs	Civil Society Organizations
ISWM	Integrated Solid Waste Management
MMB	Mandera Municipal Board
MANWAS CO	Mandera Water and Sanitation Company
KIE	Kenya industrial estates
NEMA	National Environment Management Authority
NGOs	Non-Governmental Organization
PCs	Private Companies
PS	Private Sector
PPP	Public Private Partnership
SMEs	Small Scale Enterprises
ISWM	Integrated Solid Waste Management

# **SOLID WASTE MANAGEMENT POLICY FOR MANDERA MUNICIPALITY**

## **1.0 Introduction**

### **1.1. Background information**

#### **1.2 MANDERA COUNTY**

Mandera County is located in the North Eastern region of Kenya. This region was formerly called North Eastern province. The County population is about 1,025,756 (559,943 males and 465,813 females) 2009 census. It is 25,991.5km<sup>2</sup> and has seven Sub-counties namely: Mandera East, Lafey, Mandera North, Mandera South, Banisa, Kutulo and Mandera West. The Sub-counties are further divided into five wards each, except for Kutulo which is a ward under Mandera South elevated to a Sub-county, bringing the total number of wards in the county to thirty. It shares international boundaries with Ethiopia to the North & North West and Somalia to the East. It borders Wajir County to the South and South West.

The County is characterized by low lying rocky hills located on the plains that rise gradually from 400 meters above sea level in the south at Elwak to 970 metres above sea level on the border with Ethiopian highlands.

#### **1.3 MANDERA MUNICIPALITY**

The second term of the County Government has seen the devolution of services further to the Sub-counties and creation of third tier administration by creating Municipalities which are corporate bodies of the Counties established according to section 9(1) of Urban Areas and Cities Act, 2011. There are currently 59 Municipalities in the Country with 45 being County headquarters excluding Nairobi and Mombasa which are cities and the other 14 being major urban centres in different Counties.

Mandera County has only the County headquarter as the Municipality which covers Township, Neboi and Khalalio wards of Mandera East Sub-county. The Charter establishing the Municipality was signed on 21<sup>st</sup> May 2018 and gazetted on 17<sup>th</sup> September 2018 through notice number 10407.

Mandera Municipality's governance system comprises of a board of nine members and an administrative arm headed by the Municipal Manager. The board works on part time by giving strategic direction during their meetings and the Manager is charged with the day to day operations of the Municipality together with the technical team under him.

#### **1.4 Mandera Municipal Board**

Mandera Municipal Board (MMB) was inaugurated on 27<sup>th</sup> July 2018 following their approval of the by the Mandera County Assembly. The Board has nine members headed by the Chairman and Municipal Manager is the secretary and head of the executive. The charter spells out the mandate of the board and key among being Solid Waste Management (SWM).

## **2.0 SITUATION ANALYSIS**

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

Waste management remains one of the most imminent environmental challenges facing most urban centers in Kenya today and Mandera Municipality is no exception. Its management, or lack thereof has major implications to health, environment, economy and the society at large. Lack of good waste management affect 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.

Mandera Municipality like many other urban areas in Kenya also faces a major challenge in SWM which requires an elaborate policy framework to address it.

The projections based on current statistics indicate that the Municipality will be generating over 200 tons per day by 2020. If these wastes are not managed properly, the environmental effects it will cause will be enormous. Mandera Municipality has also history of dengue fever and cholera outbreaks which are all related to breeding of mosquitoes and other vectors in the waste heaps that is not properly managed.

The Management of solid waste in Municipality involve three stages and these includes; Storage and Collection, Transportation and Final Disposal.

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

The Municipality has been zoned into 10 zones which includes Zone 1&2 covering Mandera town CBD, Zone 3, 4, 5, 6, 7, 8, 9 and 10 covers all the areas – Central, Kamor, BP1, Shafshafey, Neboi, Barwaqo, Bula Mpya and Township locations. In terms of frequency, daily Collection and transportation services is provided in zones 1& 2 and at least twice a week in the other areas. The Municipality has constructed 14 collection points where skips have been put and they are emptied daily by two skip loaders. There is also two hired tippers and one that belongs to the Municipality doing collection based on schedules from the places not served by the collection points.

### **2.2 Solid Waste Disposal Methods**

Waste disposal is a major environmental challenge in Mandera town. The common methods practiced include open dumping, open burning, incineration of medical waste and burying. Of these methods, open dumping is the main mode of disposal at Mandera dumping sites at BP1 and Karo. The BP1 open dumpsite is almost full and due for relocation and closure. The disposal site poses a threat to neighboring land uses especially the BP1 location which is situated adjacent to it. Attempts to move the disposal site outside the town Centre been made by the County and a site has been identified and fenced at Karo location about 10 KM outside the 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 which can be reduce ,reuse and recycle such as Paper, plastic and rubbles, aggregate material such as glass, metals. Informal waste recycling initiatives are also carried out by waste pickers especially in the residential

areas and at the dumpsite .Waste separation at the household level is poor which makes the recycling efforts difficult. There are no formal wastes recycling initiatives in the town but plastics are taken across the border to Ethiopia for recycling.

#### **2.4 Institutional framework for solid waste management in Mandera.**

The Environment unit which currently handles solid waste management matters in the municipality has a weak capacity in terms of the requisite personnel for effective SWM operations. There is 160 staff most whom are unskilled women who are inadequate to effectively ensure quality service delivery.

#### **2.5 Financial Aspects**

As explained above, solid waste management consists of collection, transportation and disposal. The SWM service fee varies depending on the type of businesses based on the approved fees and charges. This is a combined fee that caters for the cost of collection, transportation and disposal. A flat rate of Ksh 200 is charged on every household connected to water supply.

Payment procedure of disposal and transportation cost consists of two different ways. First, households connected to MANWASCO water supply system pay their solid waste fee through water supply bill. So, the water supply bill includes solid waste fee. Water supply Company, then, delivers the payment to the county on a monthly basis. This method is adopted based on assumption that the efficiency of payment will be high. People will be very eager to pay water supply bill, but paying solid waste fee in a single bill is predicted less. Willingness of the people to pay is very low. The water supply company is a semi-autonomous company, which is owned by the County. Therefore, solid waste revenue is based on the amount of water supply connection.

Secondly, people who are not connected to the water supply system pay the solid waste cost through payment directly to the County with the business permits. The number of people, who are not connected to the water supply system, is larger than the amount connected. However, solid waste revenue from the non-water supply connection is far below the properties connected to water supply system.

#### **2.6 Public Participation**

Key element of the public participation is involvement of the community in the decision and implementation process. Community participation in SWM is very low and this is shown by the malpractices common at the household level where residents dump garbage haphazardly without due regard for the health and environmental implications.

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

### 2.7.1 National Legislative and Regulatory Framework for Waste Management in Kenya

- ❖ The Constitution of Kenya (CoK) article 42 states that every Kenyan citizen has a right to a clean and healthy environment that includes the right to have the environment sustainably protected through legislations and other measures. It also devolved solid waste management to the 47 county governments. This is implemented through various policy and regulatory frameworks as follows:
- ❖ Environmental Management and Coordination Act Cap 387 and the EMCA Waste Management regulations (2006) provides a general framework for waste management in Kenya and provides a guide for licensing, transportation and disposal of waste. The generator of waste, transporter, recyclers and institutions that own disposal facilities have obligations to ensure the activities do not deprive citizens the above constitutional right.
- ❖ The Waste Management Regulations- 2006 provide a framework for managing the environment including waste management and classifies waste as hazardous and nonhazardous waste, with a focus on transportation, disposal licensing and burying of waste. National Environment Policy 2013 acknowledges that unsustainable consumption and production patterns leads to excessive waste generation and calls for development of integrated national waste management strategy, promotion of economic incentives to manage waste and promotion of clean production, waste recovery, recycling and reuse.
- ❖ The National Environmental Management Authority (NEMA) Waste Management Strategy (2015) aims to create a 7R oriented society in Reducing, Rethinking, Refusing, Recycling, Reusing, repairing, refilling. Focus areas being waste collection, transportation, and disposal and licensing. The order prescribed by strategy of the 7R is not in any environmental waste management priority. The strategy also focused attention on the 5 urban centers proposed by Vision 2030.
- ❖ Gazette Notice number 2356 of February 2017 totally banned ban on the manufacture, sale, export and importation of plastic carrier bags in Kenya. The ban of the polythene carrier bags effected in August 2017 contributed a positive impact towards minimizing waste generation in Kenya.
- ❖ Kenya Nationally Determined Contribution waste is considered a key mitigation sector for the reduction of green gas house emissions. Nationally Appropriate Mitigation Action (NAMA 2016) proposal for a Circular Economy Solid Waste Management Approach for Urban Areas in Kenya was developed by the MENR in 2016. The NAMA concept include waste sorting, creation of recycling points, recycling of 600 tons of waste per day and composting facilities for organic waste treatment.



- ❖ The National Climate Change Action Plan 2018–2022 proposes to reduce GHG emissions' through adoption of circular approaches to waste management and engineered landfills.
- ❖ Additional instruments' include Kenya vision 2030, Draft chemical regulations, 2019, Pest Control Products Act, Cap 346 Asbestos guidelines, Air quality regulations 2014, E-waste guidelines (2014)

### **2.7.2 Existing Legislative and Regulatory Framework for Waste Management in Mandera Municipality**

The challenges facing SWM in Mandera Municipality is mostly due to inadequate policy and regulatory framework. The County has been operating on the conservancy policy which only emphasis on collection and disposal of refuse as outlined in local government act CAP 265. The local government act does not mention SWM but it provides that local authorities are mandate to provide solid waste management services. Section 160 (a) provides that local authorities establish and maintain sanitary services for destruction of ,or otherwise dealing with all kinds of refuse and effluent and where any such service is established , to compel the use of such service by persons to whom the service is available. The provision implied that local authorities are mandated to provide SWM services.

Other sectorial statutes which provide for SWM are the public health act CAP 372 and Environmental management and coordination act (EMCA) 1999. EMCA (1999) allocates considerable property rights as far as various aspects of environmental management are concerned.

NEMA has also enacted solid waste management regulations of 2006 which provide and elaborate guidelines for handling of SWM in general. It is expected that that the Municipal Board will use these guidelines to develop their own SWM by- laws that seeks to domesticate them for the purpose of promoting a clean and healthy environmental the local level.

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

Generally the municipality does not have a policy and legislation which address SWM matters adequately. The existing by -laws does not adequately provides 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

Mandera municipal Board recognizes solid waste as a resource that should be managed so as to ensure a clean and healthy environment for improved quality of life, promote ecological integrity and encourage economic vitality in a way that facilitates sustainability.

#### 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-centred 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 shall 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 shall be processed, treated and disposed as much as possible to the location of its generation.
- (v) **Precautionary Principle:** the principle that precautionary measures should be taken even if some cause and effect relationship are not fully established scientifically when an activity or product raises threats of harm to human health or the environment. Polluter pays principle: the principle that those who produce pollution or waste should bear the costs of managing it to prevent damage to human health or the environment. Makes the party responsible for polluting responsible for paying damage done.
- (vii) **Zero Waste principle:** the principle 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 that producers should be given significant responsibility financial 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 principle incentivizes 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 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 benefit's 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, decision-making

### 3.3 Policy Objectives

This policy sets out the aim of the Mandera Municipal Board (MMB) to gain control over the waste we generate. The policy will lend special emphasis on waste generators responsibility, private sector initiatives, and solid waste hierarchy

### **3.4 The Integrated Solid Waste Management Strategy.**

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/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 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 induce 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.

## **4.2 POLICY INTERVENTIONS**

### **4.2.1 THE SOLID WASTE MANAGEMENT POLICY**

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

1. Inefficient and ineffective solid waste collection and transportation system.
2. Inadequate capacity in SWM
3. Indiscriminate waste disposal
4. Poor waste disposal and treatment.
5. Inadequate stakeholder involvement in SWM
6. Uncoordinated informal solid waste minimization activities.
7. Inadequate systems for handling hazardous waste
8. Inadequate financing mechanism for SWM

In order to achieve this goal the following strategic objectives are proposed to improve solid waste management in entire Mandera 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 and County 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

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 inadequate transport in which the available vehicles are old and which are always prone to break down 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 waste both hazardous and non-hazardous till it reaches its disposal destination

A Waste management zoning plan provides the framework for the town's spatial coverage of solid waste management is needed. This arrangement aims to provide an enabling environment for the realization of public-private-partnerships through the issuance of service contracts by the Board whenever required. The plan will also help to eliminate the problem of coordination, duplication of efforts and resources; curb unhealthy competition by waste management stakeholders; reduce long travel routes in search of customers 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 will shall:**

- ❖ Review the Existing zoning plan to ensure to make effective and efficient
- ❖ Ensure that waste service providers 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 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 Mandera County Government 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 that 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 priorities potential sites for setting up composting plants and financial requirements of setting up composting 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 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 Mandera 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 awareness and sensitisation programme for sustainable SWM service provision.
- ❖ Training and sensitization of leaders and Municipal staff on SWM;
- ❖ Institute clean days to sensitize Public awareness creation on SWM issues i.e. by-laws, community involvement, source separation, and neighborhood clean ups; Demonstration and/or pilot SWM projects; Community participation; Community self-regulation, School based programmes such as competition. The hold a mass clean up once a month and this requires adequate political will.

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

The incomes earned by the informal waste pickers are 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.

#### **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 included insufficient financial outlays, shortage of vehicles, inappropriate employment and allocation of staff, and lack of proper planning and systematic approach by the Department of Environment. The shortcomings of the SWM programmes in Mandera Municipality are also contributed partly by inadequate 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;

- ❖ Develop municipal waste management plans which is aligned to this policy.
- ❖ Ensure that waste service providers are trained and Licensed including collector and transporters.

### **Objective 7: Capacity Building for Effective Solid Waste Management**

The waste collection efficiency in Mandera is rated low and the reason for low collection includes financial constraints, shortage of vehicles and staff. To improve collection by public and private sector as well as SMEs requires the following:

- ❖ Capacity building of environment section to be able to provide the enabling environment for the other actors to take part in the sector.
- ❖ Strengthen the environment unit.
- ❖ Build capacity among the stakeholders on proper waste management
- ❖ Enhance skilled staff establishment.

### **Objective 8: 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 9: Enhance Financial Mechanism for SWM**

#### **Policy Statements**

The board shall;

- ❖ Liase with County government to ensure that adequate resources is allocated resources for sustainable waste management actions in county budgetary processes.
- ❖ Build capacity to mobilize and enhance absorption of resources for sustainable waste management interventions.
- ❖ Promote the creation of green jobs by establishing an enabling policy framework for investment, and creating business friendly regulatory environments in recycling, green economy, and sustainable waste management.
- ❖ Support waste management enterprises at Municipality level, including those run by vulnerable and marginalized Groups.
- ❖ Oversee sector specific 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 10: 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, registered service providers to ensure that all policy and regulatory decisions at the Municipality level are informed by and based on credible data.
- ❖ Shall incorporate waste management indicators into the Municipality's Integrated Monitoring and Evaluation System

#### **Objective 11: 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.

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