



# **COUNTY GOVERNMENT OF NAROK MUNICIPALITY OF KILGORIS**

## **SOLID WASTE MANAGEMENT POLICY/ PLAN FOR MUNICIPALITY OF KILGORIS**

**2025**

# FOREWORD

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The management of waste remains one of the major challenges facing Kilgoris Municipality and the impact of the indiscriminate solid waste disposal continues to adversely affect service delivery. This has necessitated the Board of Kilgoris Municipality to develop this solid waste Management Policy which will also incorporate the emerging issues in the management of solid waste.

This policy will go a long way in assisting the Board 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. The ultimate goal of this policy is to guarantee the residents of Kilgoris municipality a clean, healthy and safe environment as enshrined in the constitution.

I wish to thank representatives of the various departments within the County Government of Narok and all stakeholders for their participation in the process, efforts and commitment in the development of this policy.

Thank you.

MICHAEL OLOIBIRUNI MAITO

CHAIRMAN.....

KILGORIS MUNICIPAL BOARD

# EXECUTIVE SUMMARY

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Solid Waste Management is one of the biggest challenges to the Kilgoris Municipal Board in its endeavor to provide a clean and healthy environment to the residents of Kilgoris 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 Municipality.

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

The Municipality's Solid Waste Management p o l i c y builds on the previous planning efforts and describes policy measures 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. The document advocates for the adoption of waste management hierarchy.

The policy emphasizes 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.

I wish to extend my deepest gratitude to all those who participated in coming up with this policy. Special thanks goes to my colleagues who gave critical input towards the formulation of this policy.

Thank you

PETER SOMITOI

MUNICIPAL MANAGER

**KILGORIS MUNICIPALITY**

# ABBREVIATIONS

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<b>CBD</b>	- Central Business District
<b>CBOs</b>	- Community Based Organizations
<b>CSOs</b>	- Civil Society Organizations
<b>ISWM</b>	- Integrated Solid Waste Management
<b>NAWASCO</b>	- Narok Water and Sanitation Company
<b>NEMA</b>	- National Environment Management Authority
<b>NGOs</b>	- Non-Governmental Organization
<b>PCs</b>	- Private Companies
<b>PS</b>	- Private Sector
<b>PPP</b>	- Public Private Partnership
<b>SMEs</b>	- Small Scale Enterprises
<b>ISWM</b>	- Integrated Solid Waste Management

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## 1 INTRODUCTION

Kilgoris is the administrative and commercial hub of Transmara in Narok Country, plays a vital role in the Socio-Economic development of the region. The town is home to rapidly growing population driven by urbanization, increased agricultural activities and expanding market center.

Kilgoris, a vibrant and growing town, faces challenges in managing solid waste effectively due to rapid urbanization, population growth, and inadequate waste management systems. This policy provides a comprehensive framework to ensure environmentally sound, economically viable, and socially acceptable solid waste management practices.

*The population of Kilgoris Municipality, as per the 2019 Kenyan census is detailed below:*

	2019			Land Area	Density
	Male	Female	Total		
<b>County Population</b>	579,042	578,805	1,157,873	17,931.7	65
<b>Trans Mara West</b>	122,220	123,491	245,714	2,545.9	97
<b>Municipality Population</b>	40,267	41,898	76,388	474	162

Currently, Kilgoris faces significant challenges in Solid Waste management, including:

- ❖ Limited infrastructure for waste collection and disposal
- ❖ Inadequate public awareness of proper waste disposal practices
- ❖ The prevalence of open dumping and burning, which threaten public health and the environment.
- ❖ Insufficient financial and human resources to address the growing waste burden.

This policy acknowledges the urgent need to address these challenges comprehensively. It provides a structured approach for minimizing waste, promoting recycling, and ensuring safe sustainable disposal.

Guided by the principles of environmental stewardship, community participation, and economic viability, the policy aims to transform Kilgoris into a model for effective waste management in Narok County and beyond. The policy aligns with national and international frameworks including Kenya's Vision 2030, the Environmental Management and Coordination Act(EMCA)and Sustainable Development Goals(SDGs) particularly goal number 11 on sustainable cities and goal 12 responsive consumption and production. By adopting the policy, Kilgoris seeks to protect public health, conserve natural resources and create economic opportunities while fostering clean and livable urban environment.



## 1.1 Vision

*To establish a clean, healthy, and sustainable environment in Kilgoris through efficient, equitable, and integrated solid waste management.*

## 1.2 Objectives

- ❖ To minimize waste generation through public awareness and behavioral change.
- ❖ To promote recycling, reuse, and recovery of waste materials.
- ❖ To improve waste collection, transportation, and disposal systems. To ensure compliance with national and county environmental regulations.
- ❖ To engage stakeholders in waste management planning and implementation.

## 2 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 Kilgoris Municipality is no exception. It's lack of management therefore has had a major implication 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 mitigate by introducing best technologies and environmental practices.

Kilgoris 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 Solid Waste Management in the Municipality involve three stages and includes; Storage and Collection, Transportation and Final Disposal.

### 2.2 Stakeholders Engagement

Stakeholder's engagement is a critical component of Kilgoris Solid Waste Management policy it ensures that inclusion and diverse perspective, encourages collaboration and fosters ownership of waste management initiative among all stakeholders. This participatory approach enhances transparency, accountability and the long term sustainability of the waste management system.

#### **Key stakeholders in solid waste management**

The primary stakeholders in Kilgoris waste management system include:

##### 2.2.1 Government Agencies

- Kilgoris municipality
- Narok county government
- National Environmental Management Authority

##### 2.2.2 Private sector

- Waste collection Companies
- Recycling Industries and Informal recyclers
- Business Institution generating waste

##### 2.2.3 Community Members

- Residence of Kilgoris
- Community based organization(CBOs)
- Informal sector such as waste pickers and scavengers

#### 2.2.4 Civil society Organizations

- Non- Governmental Organization(NGOs) working on Environmental and Social issues

#### 2.2.5 Academic and Research Institutions

- Universities and colleges involved in Environmental research and Innovation

#### 2.2.6 Development Partners and donors

- Agencies providing technical support and financial support of waste management projects.

#### *Objectives of Stakeholders engagement*

- **Enhance Participation:** Ensure all relevant stakeholders are actively involved in planning, decision- making and implementation of waste management programs.
- **Build Awareness:** Educate stakeholders on their roles and responsibilities as well as environmental and public health impacts of poor waste management.
- **Encourage collaboration:** Foster partnership between government, private sector and community organizations to optimize resource utilization and service delivery.
- **Promote Accountability:** Establish mechanisms for stakeholder feedback, monitoring, and evaluation to ensure transparency

#### 2.2.7 Strategies for stakeholder's engagement

##### *I. Public participation*

- Organize public forums, town hall meetings and workshops to involve community members in decision-making processes
- Use survey, focus discussions to gather feedback on waste management challenges and proposed solutions.
- Establish a feedback platform (e.g. hotline or mobile) to report waste issues or illegal dumping.

##### *II. Awareness campaigns*

- Conduct mass awareness campaigns on proper waste disposal, segregation and recycling practices
- Use local media such as radio, and community newspaper to disseminate information.
- Develop education materials in local languages to reach diverse groups, including schools and informal settlements.

##### *III. Capacity building*

- Train community based organization, waste collectors and informal sector workers on safe waste handling practices
- Provide workshops for businesses and institutions on waste reduction, segregation and compliance with regulation.
- Equip government officials with technical skills to monitor and enforce waste management policies

#### *IV. Partnership and collaboration*

- Foster **public private-partnerships (PPPs)** to involve private campaign in waste collection, recycling and disposal.
- Collaborate with NGOs to implement community-level waste management projects and mobilize resources.
- Partner with academic institutions to pilot innovative waste management solutions and provide research support.

#### *V. Community Empowerment*

- Establish Community based waste management committees(CBWMCs) to oversee collection and segregation at the neighborhood level
- Introduce incentives programs, such and discount of collection fees or rewards for households practicing proper segregation.
- Support income generation activities, such as recycling and composting for community members.

#### *VI. Engagement with the Informal Sector*

- Recognize and formalize the role of informal waste pickers and recyclers by providing training, protective gear, and tools.
- Integrate informal workers into the municipal waste management system through partnerships and service contracts.

#### *VII. Business and Institutional Engagement*

- Require businesses, markets, and institutions to develop waste management plans, including waste segregation and recycling.
- Provide incentives, such as tax breaks or certifications, for businesses adopting sustainable practices

#### *VIII. Monitoring and Evaluation (M&E)*

- Involve stakeholders in monitoring the progress of waste management programs
- Conduct periodic reviews of stakeholder engagement strategies and adjust based on feedback
- Publish progress reports to ensure transparency and accountability

### 2.2.8 Specific Roles of Key Stakeholders in Engagement

#### *I. Government Agencies*

- Facilitate dialogue between stakeholders.
- Provide platforms for public participation in policy development and implementation.
- Offer technical and financial support for waste management initiatives

#### *II. Private Sector*

- Invest in waste management technologies and infrastructure.
- Participate in public-private partnerships to deliver waste collection and processing services

### *III. Community Members*

- Practice waste segregation at the source and participate in community clean-up activities
- Report illegal dumping or poor waste management practices to authorities

### *IV. NGOs and Civil Society*

- Advocate for policy improvements and promote environmental awareness.
- Implement grassroots waste management programs and mobilize community participation.

### *V. Development Partners and Donors*

- Provide technical expertise and funding for waste management projects
- Share best practices and support capacity-building initiatives.

## **2.2.9 Benefits of Effective Stakeholder Engagement**

### *I. Improved Service Delivery:*

- Collaborative efforts lead to more efficient and responsive waste management services.

### *II. Community Ownership:*

- Active participation fosters a sense of responsibility and encourages compliance with waste regulation.

### *III. Economic Opportunities:*

- Stakeholder partnerships create jobs and business opportunities in recycling, composting, and waste processing.

### *IV. Sustainable Development:*

- Engaging stakeholders ensures that waste management strategies align with local needs and global sustainability goals.

By integrating stakeholders into all aspects of waste management, Kilgoris will foster an inclusive and participatory approach that ensures the success and sustainability of its solid waste management system

## **3 WASTE COLLECTION AND TRANSPORTATION**

Efficient waste collection and transportation are fundamental to the success of Kilgoris' solid waste management system. This component ensures that waste is collected from all sources, transported

to appropriate facilities, and handled in a way that protects public health, minimizes environmental impact, and aligns with regulatory requirements.

### 3.1 Objectives of Waste Collection and Transportation

- To provide reliable and equitable waste collection services across Kilgoris, including residential, commercial, and institutional areas.
- To ensure safe and efficient transportation of waste to designated processing, recycling, or disposal facilities. resources and reduce operational costs

### 3.2 Waste Collection Strategies

#### 3.2.1 Segregation at Source

- Require households, businesses, and institutions to segregate waste into three categories:
- Biodegradable waste (e.g., food and organic waste). Recyclable waste (e.g., plastics, glass, paper, and metals)
- Residual waste (e.g., non-recyclable and hazardous materials).
- Provide color-coded bins to facilitate segregation:
  - Green for biodegradable waste.
  - Blue for recyclable waste.
  - Red for hazardous and residual waste.

#### 3.2.2 Door-to-Door Collection

- Implement door-to-door waste collection services in residential and commercial areas, focusing on efficiency and convenience.
- Employ municipal staff, private waste collectors, or community-based organizations to manage collection operations.

#### 3.2.3 Public Collection Points

- Establish strategically located waste collection points in markets, public spaces, and densely populated areas.
- Use labelled bins for segregated waste streams to minimize contamination

#### 3.2.4 Market and Institutional Waste Management

- Introduce specialized collection systems for large waste generators such as marketplaces, schools, hospitals, and hotels.
- Ensure that these entities adhere to waste segregation and timely disposal requirements.

#### 3.2.5 Special Waste Streams

- Develop separate collection mechanisms for hazardous waste, electronic waste (e-waste), and medical waste to ensure safe handling and disposal

#### 3.2.6 Community Involvement

- Involve community-based organizations (CBOs) and informal waste collectors to expand service coverage and enhance efficiency.
- Train waste collectors in safety measures, segregation practices, and customer service.

### 3.3 Waste Transportation Systems

#### 3.3.1 Modernization of Waste Transport

- Fleet Use modern, closed, and leak-proof waste collection vehicles to prevent littering and minimize health hazards during transportation.
- Equip vehicles with GPS tracking and monitoring systems for route optimization.

#### 3.3.2 Segregated Transportation

- Assign specific vehicles for different waste streams to avoid cross-contamination.
  - Trucks for biodegradable waste transported to composting sites.
  - Vehicles for recyclable waste sent to recycling centres.
- Specialized vehicles for hazardous and residual waste to ensure safe handling.

#### 3.3.3 Transfer Stations

- Establish transfer stations at strategic locations where waste from smaller collection vehicles can be consolidated before being transported to final disposal or treatment facilities
- Equip transfer stations with sorting facilities to separate recyclable and compostable waste.

#### 3.3.4 Eco-Friendly Practices

- Transition to fuel-efficient or electric waste collection vehicles to reduce carbon emissions.
- Explore innovative transport solutions, such as pedal-powered carts or small electric vehicles for narrow or congested areas.

#### 3.3.5 Rural and Peri-Urban Areas

- Use smaller, cost-effective vehicles to collect waste from remote or hard-to-reach areas.
- Establish localized waste management hubs to reduce transportation distances.

#### 3.3.6 Schedule and Route Optimization

##### **I. Scheduling**

- Develop a clear waste collection schedule for different areas, communicated to residents through public notices or mobile apps.
- Prioritize daily collection in high-waste generation zones like markets, hospitals, and restaurants

##### **II. Route Optimization**

- Use route optimization technology to reduce fuel consumption, travel time, and operational costs
- Regularly review and adjust routes based on waste generation patterns and community feedback

### 3.4 Stakeholder Roles in Waste Collection and Transportation

#### 3.4.1 Municipal Authorities

- i. Oversee the planning, implementation, and monitoring of collection and transportation systems.
- ii. Allocate resources for vehicles, equipment, and staff training. Enforce regulations related to waste segregation and collection schedules.

### 3.4.2 Private Sector

- Participate in public-private partnerships (PPPs) to provide waste collection and transportation services.
- Invest in modern vehicles and innovative waste transport technologies

### 3.4.3 Community and Informal Sector

- Assist in waste collection, particularly in underserved areas, and ensure segregation compliance.
- Report illegal dumping or missed collections to municipal authorities.

### 3.4.4 Households and Businesses

- Comply with waste segregation and collection schedules.
- Pay service fees to support municipal waste management operations.

## 3.5 Monitoring and Evaluation (M&E)

### 3.5.1 Performance Metrics

- Measure collection efficiency based on service coverage, adherence to schedules, and waste recovery rates.
- Track transportation efficiency using vehicle utilization rates and fuel consumption data.

### 3.5.2 Mechanisms

- Establish a complaint and feedback system for residents to report missed collections or other issues.
- Use community surveys to assess satisfaction with waste collection and transportation services.

### 3.5.3 Continuous Improvement

- Use data from M&E systems to refine collection schedules, routes, and fleet management practices.
- Incorporate emerging technologies and best practices to enhance efficiency and sustainability

## 3.6 Financing Waste Collection and Transportation

- I. Service Fees Introduce affordable waste collection fees for households, businesses, and
- II. institutions based on waste generation levels
- III. External Funding, seek funding from development partners, NGOs, and government grants to acquire vehicles and equipment
- IV. Cost Recovery Generate revenue from recyclable materials, compost sales, and waste-to-energy projects to subsidize operational costs.
- V. By establishing a well-structured waste collection and transportation system, Kilgoris Municipality can ensure cleaner neighbourhoods, better public health, and a sustainable environment.

# 4 WASTE TREATMENT AND DISPOSAL

## 4.1 Organic Waste Management

- Promote biogas production from organic waste to provide renewable energy for households and institutions
- Set up composting facilities at marketplaces and institutions generating large amounts of organic waste



## 4.2 Recycling and Resource Recovery

- Establish partnerships with recycling industries to process waste materials collected in Kilgoris.
- Promote waste-to-energy (WTE) technologies to convert non-recyclable waste into electricity or fuel.

### 4.2.1 3.Landfill Development

- Construct an engineered landfill with environmental safeguards such as liners, drainage systems, and leachate treatment plants.
- Gradually phase out open dumping by designating approved disposal sites that meet environmental standards.

## 4.3 Financing and Resource

### • Mobilization Revenue Generation

- Introduce a waste management levy for households, businesses, and institutions, based on waste generation levels.
- Generate income from recycling activities, compost sales, and energy recovery projects.

### External Funding

- Seek financial support from national environmental funds, donors, and green financing initiatives.
- Partner with development organizations for grants, technical assistance, and project funding.

### Subsidies and Incentives

- Provide subsidies for households and businesses adopting sustainable waste practices, such as using biodegradable packaging.
- Offer financial incentives for companies investing in waste recycling or energy recovery technologies

## 5 MONITORING AND EVALUATION (M&E)

- Performance Indicators Define clear indicators to measure the efficiency of waste collection, recycling rates, and reduction in open dumping practices.
- Track community participation and behavioral change using surveys and feedback mechanisms.

### 5.1 Regular Audits

- Conduct waste audits to assess the composition, quantity, and management of waste streams in Kilgoris.
- Publish annual reports to ensure transparency and accountability in waste management operations.

### 5.2 Adaptive Management

- Use monitoring results to adapt and improve policies, programs, and strategies.
- Incorporate new technologies and practices based on emerging trends and community needs.

By implementing these guidelines, Kilgoris aims to establish a sustainable and efficient solid waste management system that balances environmental protection, economic development, and public health.

## 6 IMPLEMENTATION PLAN

### *Phase 1: (Year 1-2)*

- Establish institutional structures and enact supporting legislation.
- Conduct baseline surveys and create a waste management database.
- Launch community sensitization and capacity-building programs

### *Phase 2: (Year 3-4)*

- Develop and operationalize waste collection systems.
- Establish composting and recycling facilities
- Pilot waste-to-energy initiatives.

### *Phase 3: (Year 5 and beyond)*

- Expand infrastructure to cover all areas of Kilgoris.
- Scale up technological interventions for advanced waste management.
- Monitor, evaluate, and update the policy framework based on lessons learned.

## **7 GOVERNANCE AND ACCOUNTABILITY**

- The Kilgoris Municipal Council will lead the policy implementation.
- A Waste Management Advisory Board comprising government, private sector, and community representatives will oversee activities.
- Annual progress reports will be shared with stakeholders to ensure transparency.

## **8 POLICY REVIEW**

This policy will be reviewed regularly to incorporate emerging trends, technologies, and challenges in waste management.

By adopting this policy, Kilgoris will lay the groundwork for sustainable solid waste management that safeguards the environment, promotes public health, and fosters economic opportunities.

## 9 POLICY GUIDELINES

### 9.1 Waste Hierarchy Framework

#### a) Prevention and Minimization

- Promote waste reduction at the source.
- Encourage use of biodegradable and eco-friendly materials.

#### b) Reuse and Recycling

- Establish collection centers for recyclable materials.
- Encourage informal waste collectors and entrepreneurs in recycling initiatives.

#### c) Safe Disposal

- Ensure sanitary landfill development for residual waste
- Phase out open dumping and burning practices.

### 9.2 Policy Guidelines for Kilgoris Solid Waste Management Policy

The following policy guidelines outline the strategies and actions required to establish a robust, sustainable, and inclusive waste management system in Kilgoris.

#### 9.2.1 Waste Hierarchy Framework

To effectively manage solid waste, Kilgoris will adopt the internationally recognized waste hierarchy approach, which prioritizes actions in the following order:

- **Prevention and Minimization**
  - Encourage households, businesses, and institutions to reduce waste at the source through campaigns on mindful consumption.
  - Promote eco-friendly products, biodegradable packaging, and practices that minimize waste generation
- **Reuse and Recycling**
  - Facilitate the establishment of collection points for recyclable waste, including plastics, glass, paper, and metals.
  - Support local entrepreneurs and informal sector workers engaged in recycling through training, equipment, and partnerships.
  - Establish recycling facilities or collaborate with regional recycling companies to process reusable waste.
- **Composting for Organic Waste**
  - Promote household and community-level composting initiatives for organic waste, especially in markets and farming communities
  - Establish centralized composting facilities to produce organic fertilizers for local agricultural use.
- **Safe Disposal for Residual Waste**
  - Develop sanitary landfills for the safe and environmentally sound disposal of non-recyclable and non-compostable waste.
  - Implement measures such as leachate collection systems and regular monitoring to mitigate environmental contamination

## 10 INSTITUTIONAL FRAMEWORK

The institutional framework defines the roles of key actors, including government agencies, private entities, community organization, and the stakeholders involved in waste management in Kilgoris

### 10.1 Kilgoris Municipality

#### Role

- Serve as a lead Agencies in planning, coordinating and implementing solid waste management initiatives
- Develop waste management policies, allocate resources and oversee day to day operations

#### Responsibilities:

- Enforce waste management by-laws
- Establish and management waste collection and disposal facilities.
- Coordinate with other stakeholders, including private waste collectors and recyclers.

### 10.2 Narok County Government

#### Role

- Provide legislative and policy support to Kilgoris Municipality.
- Allocate budgetary resources for waste management, infrastructure and programs

#### Responsibilities

- Monitor compliance with county and National environmental laws
- Facilitate technical assistance and capacity-building for waste management personnel.
- Collaborate with the National Environmental Management Authority (NEMA) to enforce regulations

### 10.3 National Environmental Management Authority(NEMA)

#### Role

- Ensure compliance with the national environmental laws, such as the Environmental laws such as EMCA

#### Responsibilities

- Approve Environmental Impact Assessment for waste management projects.
- Monitor and enforce pollution control measures at waste disposal sites

### 10.4 Private Sector

#### Role

- Participate in waste collection, transportation, recycling and disposal through public-private partnerships (PPPs)

#### Responsibilities

- Invest in recycling and waste- to-energy technologies.

- Operate collection and processing systems under agreement with the municipality

## 10.5 Community-Based Organization Organizations (CBOs) and Non-Governmental Organization (NGOs)

### **Role**

- Mobilize community participation and awareness in waste management
- Advocate for sustainable practices and support grassroots initiative.

### **Responsibilities**

- Assist in educating communities and about waste segregation and recycling.
- Act as intermediaries between the municipality and local communities.

## 10.6 Informal Sector

### **Role**

- Compliment formal waste collection and recycling efforts

### **Responsibilities**

- Collect, sort, and recycle waste particularly in underserved areas.
- Work with authorities to improve occupational safety and efficiency

## 11 LEGAL FRAMEWORK

A robust legal framework ensures the enforcement of waste management policies and compliance with environmental standards. The Kilgoris Solid Waste Management policy aligns with the national and county laws with provision for By-laws tailored to towns 'specific needs.

### 11.1 National legal provisions

#### 11.1.1 Environmental Management and Coordination Act(EMCA,1999)

The EMCA provides a legal basis for sustainable environmental management, including solid waste. It mandates NEMA to regulate waste disposal and pollution control.

#### 11.1.2 Solid Waste Management Regulations 2006

These regulations outline the roles of individuals, businesses, and local government in managing solid waste, including segregation, transportation treatment and disposal.

#### 11.1.3 Waste Management Policy,2021

Emphasizes the need for Integrated waste management approaches and sets national standards for waste segregation, recycling and disposal.

#### 11.1.4 Public Health Act

Mandates local government to prevent conditions that harm public health, including unmanaged waste.

### 11.2 County-level legal provision

#### 11.2.1 Narok county waste Management Act

- Provides guideline for waste collect, transportation, and disposal within the county.
- Authorizes the county government to levy fees for waste management services.

#### 11.2.2 Local by-laws for Kilgoris

- These specific by-laws will address unique challenges in Kilgoris, such as livestock waste from pastoralist activities, market waste and urban informal settlements.
- Penalties will be established for legal dumping, littering and burning of waste

### 11.3 Enforcement Mechanisms

#### 11.3.1 Inspection and Monitoring

- Regular inspections of waste collection, transportation and disposal systems by municipality and NEMA
- Periodic audits of waste management facilities to ensure compliance with standards.
- Fines for violations, such as illegal dumping, littering and non-compliance with waste segregation, requirements
- Tax incentives and subsidies for businesses and individuals adopting sustainable waste practices.

#### 11.3.2 Licensing and Permits

- Require all waste management service providers to obtain license from the Kilgoris municipality and NEMA



- Ensure proper documentation and adherence to operational guidelines for waste transportation and disposal.

## 11.4 Dispute Resolution

- Establish a grievance redress mechanism within the municipality to address complaints and disputes related to waste management service.
- Utilize alternative dispute resolution (ADR) mechanisms, such as mediation, to resolve conflicts between stakeholders.

## 11.5 Coordination oversight

### 11.5.1 Kilgoris waste Management committee

A multi stake holder committee comparing representatives from the municipality, county government, NEMA, private sector, NGOs and community groups.

### **Responsibilities**

- i. Monitor implementation of the waste management policy
- ii. Provide policy recommendations and resolve operation challenges.
- iii. Periodic Reviews
  - Conduct biannual reviews of the legal and institutional Frameworks to adapt to emerging waste management challenges and technologies.
  - By establishing this institutional and legal framework, Kilgoris aims to foster effective coordination among stakeholders, ensure compliance with regulations, and create sustainable waste management system that benefits the community and the environment.
- iv. Strengthening Institutions
  - Enhance the capacity of Kilgoris town authorities and Narok County waste management departments to enforce regulations and manage waste efficiently.
  - Establish a dedicated Municipal Solid Waste Management Unit to oversee operations, budgeting, and monitoring.
- v. Legal Compliance
  - Enforce compliance with the Environmental Management and Coordination Act (EMCA) and other national laws on waste management
  - Develop local by-laws specific to Kilgoris to address unique waste management challenges, such as livestock waste, market waste, and informal settlements.

### 11.5.2 Public Awareness and Education

- i. Community Sensitization
  - Conduct awareness campaigns in schools, markets, and community centers to educate residents on waste segregation, recycling, and environmental conservation.
- ii. Behavior Change Initiatives Introduce
  - Develop educational materials in local languages to reach diverse groups effectively.

- programs to encourage residents to adopt proper waste disposal habits, such as incentivizing waste segregation at the household level
- Partner with local media to promote positive narratives about waste reduction and recycling

### 11.5.3 Stakeholder Engagement

#### *i. Community Participation*

- Involve community-based organizations (CBOs) and self-help groups in waste collection, monitoring, and education.
- Set up feedback channels for residents to voice concerns and suggestions regarding waste management services.

#### *ii. Private Sector Involvement*

- Foster public-private partnerships (PPPs) with local businesses, waste collectors, and recyclers to improve service delivery.
- Provide incentives, such as tax breaks or grants, to private entities investing in waste management technologies or infrastructure.

#### *iii. Collaboration with NGOs and Development Partners*

- Partner with non-governmental organizations (NGOs) and international development agencies to access technical expertise, funding, and innovative solutions for waste management.

## 12 POLICY INTERVENTIONS

### 12.1 SOLID WASTE MANAGEMENT POLICY

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

### 12.2 GOALS FOR SOLID WASTE MANAGEMENT

- a. Protection of public health
- b. Reduction of poverty
- c. Reduction of waste management costs
- d. 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 Kilgoris 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.

### 12.3 SPECIFIC OBJECTIVES AND KEY ACTIONS.

#### ***Objective1: 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 services, lack of 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 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.
- ❖ Elimination of 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 shall:**

- ❖ Review the existing zoning plan to ensure effectiveness and efficiency in the operational areas.

Enhance waste collection and transportation capacity

- ❖ 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 regulations at source based on the national gazette, 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 Kilgoris 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 Kilgoris 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 sensitization 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.

### ***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 include 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 Kilgoris 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, equipment and operational costs.

Policy statements

**The Board shall;**

- ❖ Ensure adequate financial provision for SWM services
- ❖ Establish SWM unit with adequate 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.

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 is 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.