



**PERFORMANCE AUDIT REPORT**

**ON**

**WASTE MANAGEMENT BY THE CITY**

**COUNCILS**

**MINISTRY OF LOCAL GOVERNMENT AND RURAL  
DEVELOPMENT**

**National Audit Office  
P.O Box 30045  
Lilongwe 3**

**November, 2014**

# **NATIONAL AUDIT OFFICE**

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National Audit Office  
P.O Box 30045  
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Lilongwe 3  
20<sup>th</sup> November, 2014

The Honorable Minister of Finance  
Ministry of Finance  
P.O Box 30049  
Lilongwe 3  
Malawi

Dear Sir,

Pursuant to the provision of Section 184(2) of the Constitution of the Republic of Malawi and the Public Audit Act, I have the honor to submit the first Performance Audit Report on Waste Management by the City Councils in the Ministry of Local Government and Rural Development for tabling in the National Assembly.

Performance audit is being carried out by my office in line with current international trends in the auditing profession. This has been aligned with a strategic outcome within the National Audit Office Strategic Plan of **Enhancing Value for Money in the MDAs when implementing their planned projects and programmes.**

A performance audit is an audit of the economy, efficiency and effectiveness with which the audited entity/entities uses its resources to achieve its goals. The aim of a performance audit is to ensure better use of resources, improved operations and better decision making in reaching policy objectives set by Parliament.

My office intends to carry out a follow up audit at an appropriate time in future regarding actions taken by the ministry on the recommendations contained in this report.

Yours faithfully,

S.D.L Kamphasa  
Auditor General

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## **ACRONYMS**

BCA: Blantyre City Assembly

COSO: Committee of Sponsoring Organizations

DANIDA: Danish International Development Agency

DEA: Director of Environmental Affairs

EAD: Environmental Affairs Department

EIA: Environmental Impact Assessment

GRF: General Resource Funds

IEC: International Environmental Committee

INTOSAI: International Organization of Supreme Audit Institutions

MBS: Malawi Bureau of Standards

MGDS: Malawi Development Growth Strategies

NEAP: National Environment Action Plan

NEP: National Environment Policy

NGO: Non-governmental Organizations

NSP: National Sanitation Policy

NWP: National Water Policy

ORT: Other Recurrent Transaction

## **EXECUTIVE SUMMARY**

### **INTRODUCTION**

The significant population and economic growth in Malawi, in recent years has led to a sharp increase in the generation of solid and liquid wastes. Proper collection and disposal of waste is essential in safeguarding human health and protection of the environment.

The Ministry of Local Government and Rural Development oversees the governance of Local Councils. The Local Councils, including City and District Councils are responsible for the operational management of waste.

Waste management encompasses prevention, minimization, collection, transporting, processing, recycling or disposal, energy recovery and monitoring of waste materials. Unsatisfactory handling of waste could lead to contamination of soil, surface water, ground water and air.

The objective of the audit was to assess whether waste collection and disposal is done economically and efficiently by the Councils and the Ministry of Local Government and Rural Development. To achieve the objective, the following audit questions were used:

1. To what extent is solid waste collected and disposed off on time and corresponding to the waste being generated?
2. To what extent is liquid waste collected and treated without pollution?
3. To what extent have the City and District councils established efficient organizations, routines and monitoring of waste collection and disposal?
4. To what extent has the Ministry of Local Government and Rural Development ensured proper support, and established sufficient monitoring mechanisms regarding waste collection and disposal?

The audit concentrated on the process of waste management, thus solid and liquid waste from collection to disposal at dumpsite and treatment plants. The audit covered three financial years, 2008/2009 and 2009/2010 and 2010/2011.

Data collection was obtained through interviews, document reviews and physical observation. The audit included all the four city councils: Blantyre, Zomba Lilongwe and Mzuzu

## FINDINGS

### **Waste collection and disposal**

The audit disclosed that there are critical challenges related to waste management in Malawi. A large proportion of the solid waste generated is not collected. On average the councils managed to collect and dispose off less than 30% of the total solid wastes generated. It was also established through waste collection vehicle logbook analysis that 62% of the waste collection points experienced under-collection frequency as compared to targeted frequency. This was due to insufficient facilities such as skips and waste collection and disposal vehicles.

Blantyre City Council had 100 skips out of which 70 were used by private companies. This meant that only 30% of the skips were left for use by the population of approximately 751,642 which generates an average of 109,739 tonnes per year. Mzuzu City Council had 30 skips out of which 10 were used by companies. Lilongwe City Council had 80 skips out of which 44 were placed to serve the high density areas. The number of skips available for use as receptacles for the high populated areas of Lilongwe City Council was less than the required number of 150 skips. This is worsening the situation of wastes in the councils.

Lilongwe City Council had seven operating waste collection vehicles, representing 40% of the available waste collection vehicles which were required on daily basis to transport and dispose about 80 skips. Blantyre City Council had six operating waste collection vehicles, representing 41% of the available waste collection vehicles required to transport and dispose 100 skips. Mzuzu City Council had one operating vehicle against 20 skips representing 20% of the available waste collection vehicles.

Methods of waste disposal being used were not appropriate as the landfill dumpsites did not meet the required standards. Physical observation of the dump sites at Mzedi in Blantyre, Area 38 in Lilongwe and Mchenga Utuwa in Mzuzu established that; they were neither fenced nor did they have weigh bridges for determining the quantities of wastes being disposed off. Inspection and separation of wastes into degradable and non degradable at the dump sites was



not being done. Wastes were only being deposited without being compacted and covered with soil; rather, they were burnt in order to reduce the quantities. Some of the dumping sites were over used as their life span had elapsed though still being used.

### **Treatment of liquid wastes**

Physical observation established that 60% of the waste water treatment plants in the city councils were not operational. Reported through interview, the plants were not operational due to sewer line blockages, vandalized manholes and damaged pipes. Liquid waste flowing to these treatment plants was moving out of the system and discharged into streams and rivers causing water pollution.

Treatment of liquid waste was not up to standard underpinned with failure to conduct effective quality test before letting the waste water back into the streams. Physical observation established that the inability of testing waste water was due to unavailability of chemicals and dilapidated laboratories such as one in Zomba. This creates a risk of health hazard and vulnerability especially to the population that use the water from the streams.

### **How the councils organize and manage waste collection and disposal**

Management of solid and liquid waste is organized under two directorates in Blantyre and Lilongwe City Councils. The Director of Engineering Department is responsible for the operations, rehabilitation and maintenance of the sewer lines and sewerages. The cleansing services section under the Directorate of Health and Social Welfare Services is responsible for collection and disposal of solid waste, street cleansing and emptying of septic tanks. The organization setup is different in Zomba and Mzuzu city councils where both solid and liquid wastes are managed under the Directorate of Health and Social Welfare Services. On the other hand, all vehicles including waste collection vehicles are managed by the transport officer under Administration Department.

Interview with the Director of Engineering in Blantyre City Council disclosed that managing solid and liquid waste under different departments posed a challenge in terms of reporting, monitoring and maintenance of waste collection and disposal.

Councils faced challenges in implementing objectives and strategies that were laid down to ensure efficient and effective collection and disposal of waste. The number of waste collection vehicles had not been increased hence failure to meet the targets of waste collection frequency of once per week in the residential areas and daily in the market places.

Review of skip allocation records and physical observation revealed that the councils had neither increased the number of skips nor elected concrete street litter bins along the busy streets. Wastes were being improperly deposited in the streets and residential areas causing nuisance to the inhabitants.

An analysis of waste collection vehicle logbooks revealed that the collection and disposal routines were not being followed properly. An average of 55% of the sampled collection points and routes in Blantyre City Council were not visited in some months from 2008/09 to 2010/11. An analysis for Zomba City Council showed that 27% of the sampled routes and collection points were not visited. Lilongwe and Mzuzu City Councils were unable to provide the requested vehicle log books due to poor record keeping.

### **How the Ministry oversees waste collection and disposal in the councils**

Ministry of Local Government and Rural Development is one of the key stakeholders to implementing one of the key priority areas of the Malawi Development and Growth Strategies (MGDS) called “Climate Change, Natural Resources and Environmental Management”. It is there to oversee the activities of the city and district councils which include waste management. This is supposed to be done through setting of policies, providing guidelines and best standards regarding solid and liquid waste management.

A review of existing legal instruments disclosed that Malawi does not have a waste management law that addresses waste management strategies based on the waste stream requirements for minimizing generated waste. The instruments are scattered in a number of sectors and only address issues of health and safety. They do not emphasize the enforcement of “the polluter-pays principle” on waste generation. Limitations in enforcing the existing legislation particularly as it relates to waste generation, contributed to non-separation of waste at source, littering, non-reuse and non-recycle enabling environment.

Review of documents showed that environmental assessment guidelines were developed by the Department of Environment. The existing policies address the water and sanitation areas but not waste management.

Management and performance reports that are supposed to be sent to the Ministry of Local Government and Rural Development were not provided to the auditors for examination on matters discussed in management meetings concerning waste management.

## **RECOMMENDATIONS**

Considering what are perceived to be the major causes of the inefficiencies in the delivery of waste management services, it would be essential that attention should be drawn to policy issues relating to waste management on how it can be efficiently and effectively handled in Malawi. The policy issue to be looked into should relate to enforcement of the laws and guidelines, organization, funding and monitoring for waste management.

Councils should come up with a mechanism that would help reduce waste generation. Law should be put in place to ensure the use of recycling and reuse strategies. Companies that package their products in plastic bags and glasses should be requested to have these packages recycled and reused. Punitive measures should be put in place and enforced to discourage waste mismanagement.

The councils should ensure that plans on increasing the number of collection facilities such as skips, bins in residential areas and collection vehicles are implemented. Allocation of waste collection facilities should be based on population size and strategic points to ensure collection efficiency in terms of quantity.

The Councils should also ensure proper coordination among the departments that play a role in waste management issues within the Councils. They should use the available allocated human and financial resources to maintain the waste collection vehicles with minor faults in order to supplement to the number of operating vehicles to ensure large coverage of waste collection.

The Ministry should ensure that legislation and guidelines on waste management are put in place that would address issues in both solid and liquid waste management streams. There should also be a mechanism established for enforcement of the legislation.

## **COMMENTS FROM THE CITY COUNCILS AND MINISTRY OF LOCAL GOVERNMENT AND RURAL DEVELOPMENT**

Request for written comments from the Ministry and the four City Councils was made after the exit discussion on 24<sup>th</sup> February, 2014 with a two weeks' time line as per requirement of the Public audit Act Section 14(1).

In view of this, written comments were received from Blantyre City Council on 5<sup>th</sup> September, 2014. A final reminder, attached as appendix 6, was sent to the others councils on 19<sup>th</sup> September, 2014 which was followed with comments from Zomba City Council. Lilongwe, Mzuzu and the Ministry did not provide written comments to the report.

The written comments from Blantyre and Zomba City council agreed to most of the findings in this report and have been presented in the paragraphs of the findings chapter.



# 1. INTRODUCTION

## 1.1 BACKGROUND

The significant population and economic growth in Malawi in the recent years has led to a sharp increase in the generation of solid and liquid wastes. Non-biodegradable waste, such as plastics and glass, is among the waste which has increased. Proper collection and disposal of waste is essential in safeguarding human health and protecting the environment. Environment management and protection forms part of the nine key priority areas for achieving the Malawi Development and Growth Strategies (MDGS).

The Ministry of Local Government and Rural Development is responsible to oversee the management of municipal or household waste. The City and District Councils are responsible for the operational management of waste. Waste collection and disposal is financed from disposal fees, city rates and market fees (Locally Generated Revenues - LGR).

There also other sectors playing a role in the waste management. These include: The *Environmental Affairs Department* (EAD) which is responsible for the review and approval of EIAs and is therefore the key government contact for developers. The *Ministry of Health and Population* which is involved in waste management as it relates to outbreaks of disease from uncollected waste or through landfills which may contaminate drinking water and food. The *Ministry of Water Development* which is responsible for the protection of water resources. The *Ministry of Labour and Manpower Development and Irrigation* which views waste as an occupational health risk. The *Ministry of Industry and Trade* which is responsible for initiating research work for the development of guidelines for the collection, storage and transportation of waste, as well as the development of standards for labels that identify the type of waste product being transported. *Ministry of Foreign Affairs and International Cooperation* which is responsible for liaising with foreign donors who may be interested in assisting with the provision of adequate waste and sanitation facilities. *Ministry of Gender Child and Social welfare* provides education and training on waste management at household level. *Ministry of Agriculture and Food security* which is involved in promotion and delivery of low cost sanitation through integrated rural development projects within the Agriculture Development Division. The *Department of Administration within the Councils* which provides public sanitary

facilities at public places, such as markets. The *Malawi Bureau of Standards* (MBS) which has the leading role in the preparation of standards.

Waste management encompasses prevention, minimization, collection, transporting, processing, recycling or disposal, energy recovery and monitoring of waste materials.<sup>1</sup>

Waste is classified into different types depending on its source: municipal or household waste, industrial and hazardous, biomedical or hospital, construction and demolition, mining and electronic waste. It is also broadly categorized as solid and liquid waste. Liquid waste management systems in Malawi include sewerage works and oxidation ponds, septic tank and pit latrines. Liquid waste comes from the usage of water ranging from household to commercial area levels.

Unsatisfactory handling of waste could lead to contamination of soil, surface water, ground water and air. Thus, soil could be contaminated with toxic components; leachate from waste could pollute surface and ground water.

The audit on waste management was motivated by different indications of high quantity of solid waste being uncollected in Malawi. Uncollected and undisposed solid wastes in the residential and commercial areas have been an issue of increasing public concern through the media.

## 1.2 AUDIT OBJECTIVE, QUESTIONS AND SCOPE

The objective of the audit was to assess whether waste collection and disposal is done economically and efficiently through the management of the City Councils and the Ministry of Local Government and Rural Development. The following audit questions were used to meet the audit objective:

1. To what extent is solid waste collected and disposed on time and corresponding to the waste being generated?
2. To what extent is liquid waste collected and treated without pollution?

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<sup>1</sup> European Union Directive on Waste

3. To what extent have the City and District Councils established efficient organizations, routines and monitoring of waste collection and disposal?
4. To what extent has the Ministry of Local Government and Rural Development ensured proper support and established sufficient monitoring mechanisms regarding waste collection and disposal?

The audit was limited to how waste is managed in the cities of Malawi and how the Ministry is overseeing the area. How waste is managed in the districts and rural areas was not covered by the audit.

The audit concentrated on waste management of both solid and liquid waste from collection to disposal at dumpsite and treatment plants. The audit did not address prevention, minimization, reuse, recycling, and energy recovery of waste.

The audit covered the three financial years 2008/2009, 2009/2010 and 2010/2011.



## 2 METHODOLOGY

The audit was conducted in the four city councils of Blantyre, Zomba, Lilongwe and Mzuzu. Data was obtained through interviews; document reviews and physical observation. List of reviewed documents are presented in appendix 1. Questionnaires were distributed to Engineering, Health and Social Services, Finance and Transport Departments of the councils.

### **Collection and disposal of solid waste**

Generated solid waste was computed using the population size multiplied by a waste generation factor of 0.5kg per person per day.<sup>2</sup> Monthly reports on waste collection from City Councils were reviewed to establish the quantity of collected waste. Computation of number of trips multiplied by the tonnage size was done to determine collected wastes. Averages were used for waste generation and collection quantities.

Waste collection vehicle log books were reviewed to determine the frequency of waste collection from a 10% random sample of waste collection points and routes for the City Councils. These are presented in Appendix “2”. This was done to establish the extent of both non collection and under collection of wastes against the established councils’ waste collection routines.

Physical observation was carried out at sample collection points in the cities to establish availability of wastes and their magnitude. The sample collection points for physical observation were as follows:

- Blantyre: Ndirande-Saleta, Bangwe-Mvula Market, Namiwawa, Blantyre market, Ndirande Market and Kachere Market
- Zomba: Naisi Market, Chinamwali Market
- Mzuzu: Luwinga Market
- Lilongwe: Matchansi, Kaliyeka Market

Dumping sites were visited to verify the existence of the requirements for proper landfill dumpsite. The following dumping sites were visited: Area 38 dumpsite in Lilongwe, Mchenga

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<sup>2</sup>Solid waste management – Keeping Cities Clean – The Malawi experience by Prof. D.S.J Mkandawire

Utuwa Dumpsite in Mzuzu, 6 miles dumping site in Zomba and Mzedi landfill/ dump site in Blantyre.

## 2.1 COLLECTION AND TREATMENT OF LIQUID WASTE

Physical observation was carried out at treatment plants and streams in the cities into which waste water is discharged, to establish the condition of their operations. The sampled treatment plants and streams were as follows:

- Blantyre: Soche Water Treatment Plant, Kachere Stream,
- Zomba: Chikanda Water Treatment Plants, Likangala Stream
- Mzuzu: Luwinga Sludge Ponds and Lunyangwa Stream
- Lilongwe: Kauma Water Treatment Plant

## 2.2 STRATEGIES, ROUTINES AND RESOURCES FOR WASTE COLLECTION

Interviews were carried out with Chief Executive Officers, Directors of Health Services and heads of Cleaning Services to establish whether the city councils had proper strategies, plans and routines for waste collection. Data was also collected on the implementation and monitoring of plans for waste collection. Interviews with Directors of Finance and Accounts Officers and a review of budget documents were conducted to establish the resources spent on waste management in the councils.

## 2.3 OVERSIGHT OF THE MINISTRY ON COUNCILS

The Director of Local Government Services was interviewed on the role of the Ministry of Local Government and Rural Development on waste management. Monitoring plans, procedures, minutes and reports for the Ministry were requested for reviews.

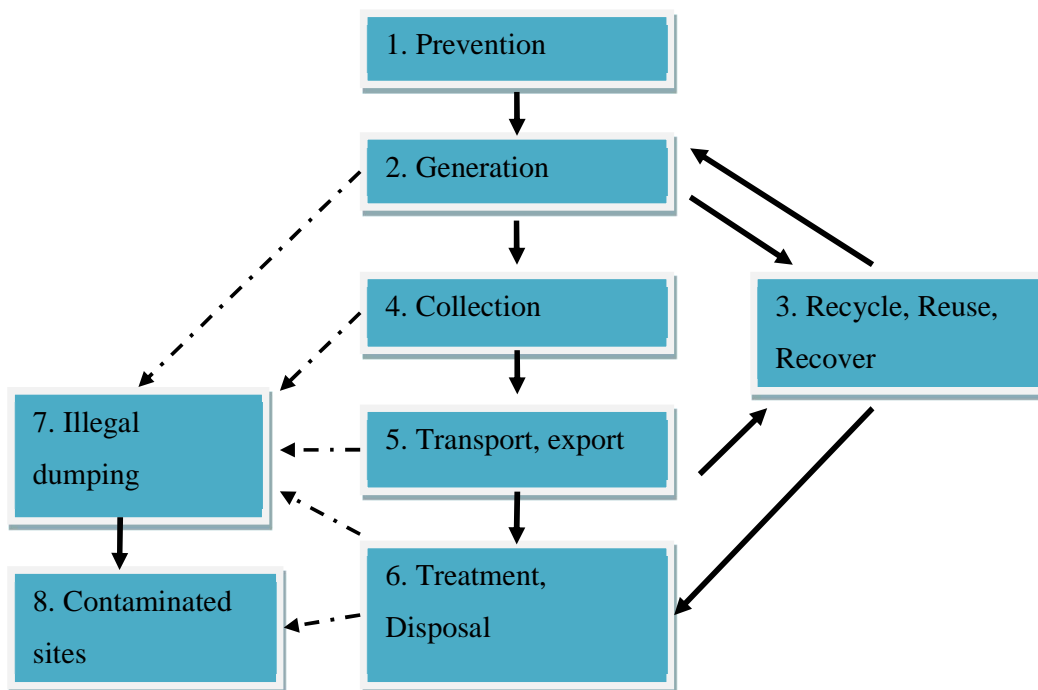
### 3 CRITERIA FOR ASSESSING THE PERFORMANCE

#### 3.1 WASTE COLLECTION AND DISPOSAL

##### 3.1.1 The solid waste stream and requirements for generation and storage

The solid waste stream presented in figure 1 forms the basis of waste policies and management systems. Government can exert influence at different stages of the stream. There are requirements attached to different stages which are supposed to be adhered to by councils.

*Figure 1: The solid waste stream*



**Source:** INTOSAI Working Group on Environmental Auditing Towards auditing management of waste page 16,

Councils are responsible for draining, cleansing and sanitation of their areas. They are also responsible for the prohibition and control of pollution of any water in any river or stream.<sup>3</sup>

<sup>3</sup> Local Government Act 1998 chapter 34.06

The polluter-pays principle<sup>4</sup> provides an incentive to minimize waste generation in stage 2 of the waste stream. The principle calls for regular inspections and internal control systems in the councils to ascertain compliance to the required waste management standards. Stage 3 requires that wastes be sorted and treated separately. Thus, either waste generators are required to sort or separate waste at source or councils should set up sorting procedures after waste collection.

Solid wastes are supposed to be stored in receptacles provided by either the owner/occupier of premises or the councils prior to collection for disposal.<sup>5</sup> The receptacles include: standard bins (metal/plastic), improvised containers, collection bays/points, stand-by trailers (skips), refuse banks and plastic bags.

### **3.1.2 Requirements for solid waste collection**

Councils are supposed to establish, maintain and manage services for collection and removal of solid and liquid wastes. They are also supposed to protect, treat and dispose solid and liquid waste, thereof whether within or without its area and may compel the use of its services by anybody or persons to whom the services are available.<sup>6</sup>

A Local Authority is responsible for collection of the general or municipal solid waste in its area of jurisdiction and this shall be done at such a frequency as to prevent the piling of wastes.<sup>7</sup>

To keep up with the waste generated, solid waste is supposed to be collected twice a week in residential areas and on daily basis in business locations such as markets. For collection points in residential areas, a 6 cubic meter skip is estimated to have the capacity of serving approximately 3000 people if it is collected daily. For special collection points such as institutions and companies, the councils are supposed to collect and dispose waste upon request.<sup>8</sup>

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<sup>4</sup> Principle 16 of the Rio Declaration: “the polluter should, in principle, bear the cost of pollution”.

<sup>5</sup> Refuse and rubble disposal By-Laws, 2002 for city councils

<sup>6</sup> Local Government Act 1998 chapter 34.02 (1)a

<sup>7</sup> Waste Management and Sanitation Regulations 2006 (10)

<sup>8</sup> Studies in Environmental Policy and Laws of Malawi and interviews

### 3.1.2 Requirements for solid waste disposal

A landfill disposal site should be fenced and is also required to have a weighbridge where waste collection vehicles are supposed to be weighed upon arrival. Through the weighing process, the daily incoming waste tonnage should be calculated and entered in a database. Wastes are then supposed to be inspected before being offloaded. After the wastes are deposited, compactors or dozers are supposed to be used to spread and compact the waste and finally cover it with soil daily. Before leaving the boundaries of the landfill, the vehicles are supposed to pass through a cleaning facility.<sup>9</sup>

In addition to the requirement for the landfill disposal site, City Councils are supposed to provide:<sup>10</sup>

- Sensitization of the dangers of individuals and animals encroaching the landfill
- Tighten Security by restricting entry into the landfill or dump site e.g. encroachers
- Erection of warning signs and install appropriate odour control devices
- Ongoing rehabilitation with trees, grass and shrubs where possible.
- Ensure that all smoke stacks are painted to reduce visual impact.
- Minimize incineration during the day.

It is not allowed to deposit waste which is likely to be injurious to health in a stream, river, or public place.<sup>11</sup>

### Requirements for liquid waste

The National Sanitation Policy (NSP)<sup>12</sup> stipulates the need to improve delivery of improved sanitation services. The policy includes the following objectives:

- To provide adequate waste water disposal facilities at all waste water generation points.
- To ensure adequate provision of waste water treatment and disposal facilities for all new piped water supply connections

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<sup>9</sup> Waste Management and Sanitation Regulations 2006 (52)

<sup>10</sup> Environmental Impact Assessment Guidelines 2002

<sup>11</sup> City Assembly by laws 2002

<sup>12</sup> Malawi Government 2008

The National Water Policy (NWP) <sup>13</sup>includes an objective of ensuring water of acceptable quality for all needs in Malawi.

### 3.2 MANAGEMENT RESPONSIBILITY OF THE CITY COUNCILS

The Controlling Officers of the City Councils are responsible for ensuring that all expenditure in the waste management area is incurred with due regard to economy, efficiency and effectiveness. The Controlling Officers must ensure that an effective system of internal control is developed and maintained for the collection and disposal of wastes.<sup>14</sup>

Establishment of relevant and realistic strategies and plans for waste management in the councils' area of jurisdiction is the starting point for establishing internal control.

Furthermore, well suited routines have to be established and implemented. If there are risks related to the economical, efficient and effective implementation of the plans and routines, corrective action is supposed to be taken. The discovery of risks at an early stage, presupposes well established reporting, communication, information and monitoring systems. Councils are also required to have monitoring mechanisms in place to ensure compliance to the waste collection and disposal plans and legal requirements.<sup>15</sup>

Councils are supposed to monitor any waste disposal site and direct the control of any such site if its continued use as a waste disposal site constitutes or is likely to constitute a hazard to the health of the people living in the vicinity of, or to the environment adjacent to, the site.<sup>16</sup>

Councils are required to finance adequately waste collection and disposal to ensure clean environments in cities and districts.<sup>17</sup> Councils are supposed to establish, maintain and manage markets and market buildings and premises within its area and shall levy fees or charges as it

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<sup>13</sup>Malawi Government 2005

<sup>14</sup>Public Finance Management Act (No 7 of 2003, section 10h, i and p).

<sup>15</sup>International standards for internal control in the public sector, INTOSAI GOV 9100 ("Guidelines for Internal Control Standards for the Public Sector")  
[http://www.issai.org/media\(574,1033\)/INTOSAI\\_GOV\\_9100\\_E.pdf](http://www.issai.org/media(574,1033)/INTOSAI_GOV_9100_E.pdf)

<sup>16</sup> Environmental Management Act 1996 37 (3)c

<sup>17</sup>Local Government Act 1998 chapter 34.02 6(11)

may decide.<sup>18</sup>They are also supposed to determine charges to be levied for collection and treatment of liquid wastes depending on quantities.<sup>19</sup>

### 3.3 RESPONSIBILITY OF THE MINISTRY LEVEL

The Ministry of Local Government and Rural Development is expected to supervise and monitor the functions of the Councils. This includes monitoring whether the management of waste is done in an economic, efficient and effective manner. The Ministry is expected to oversee whether legal requirements regarding environmental and waste management are adhered to. The Malawi Development Charter Programme requires that the Ministry of Local Government and Rural development monitors the performance of the councils through monthly visits and use of an annual performance assessment instrument. If there are general shortcomings in the area or new developments occur, the Ministry is expected to take appropriate action for instance to develop new guidelines and policies in the area.

It is a requirement to have a license in order to handle, store, transport, classify or destroy waste and to operate a waste disposal site. The Minister of Environment is responsible to issue the licenses upon advice from the Councils, subject to such conditions as the Minister may determine. The Minister may revoke any license issued if the licensee violates any condition endorsed on the license, such as presenting an environmental hazard.<sup>20</sup> No disposal site or plant shall be licensed unless an Environmental Impact Assessment has been carried out.<sup>21</sup>

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<sup>18</sup> Local Government Act 1998 chapter 34.02 6(11)

<sup>19</sup> Local Government Act 1998 chapter 34.13

<sup>20</sup> Environmental management act 1996, section 38

<sup>21</sup> Waste Management and Sanitation Regulations 2006 (49)

## 4 FINDINGS

### 4.1 SOLID WASTE COLLECTION AND DISPOSAL

#### 4.1.1 Collection facilities

Solid waste is supposed to be stored in receptacles provided by either the occupier of premises or the councils prior to collection.<sup>22</sup> In order to implement this requirement, the councils are supposed to establish collection points where skips are placed.

Table 1 shows number of skips available in the four cities. There are large differences in the number of skips among the cities relative to the population. This indicates that Blantyre and Lilongwe have less collection facilities compared to Mzuzu.<sup>23</sup>

The percentage of skips allocated for the public also varies greatly among the cities. While Blantyre City Council allocated 30 percent for the public, Mzuzu used 67 percent for public purposes. Zomba City Council did not have skips. However, dust bins and wheelbarrows were used in market places.

*Table 1 Skips available in the cities*

City	Population estimate 2012	Skips for private companies	Skips for the public	Percentage of skips allocated for the public	Total no of persons per skip for the public
Blantyre	783 296	70	30	30 %	26 110
Lilongwe	868 800	34	46	58 %	18 887
Mzuzu	181 690	10	20	67 %	9 085
Zomba	115 013	0	0	Not Applicable	Not Applicable

Source: Population figures from National Statistics Office. "Population and Housing Census 2000, Population projections." November 2010.

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<sup>22</sup>City Council Bye-Laws on Refuse and Rubble

<sup>23</sup> The percentage of the population living in low-density residential areas covered by collection routes may differ between the cities. The calculation of no of persons per skip for the public must therefore be interpreted as a rough comparison between the collection capacity in the cities, and not an absolute measure of no of persons per skip made available for the public.



### **Lilongwe City Council: Distribution of Skips**

A six cubic metre skip is assumed to be sufficient for collection of waste for approximately 3000 people, as long as it is collected daily.<sup>24</sup> Table 2 shows the number of skips available and the population in high-density areas of Lilongwe City Council.

*Table 2 Distribution of skips in high density areas of Lilongwe City Council*

Name of Area	Population estimate 2012	Number of skips required to be 1 per 3000 inhabitants	Number of skips available	Skip variance
Area 25	73 565	25	4	-21
Area 36	52 333	17	3	-14
Area 23	52 092	17	6	-11
Area 7 (Kawale)	46 502	16	5	-11
Area 22	33 443	11	1	-10
Area 24	27 246	9	1	-8
Area 8 (Mchesi)	23 312	8	3	-5
Area 21 (Chilinde)	51 165	17	13	-4
Area 18	15 291	5	3	-2
Area 1	15 605	5	5	0
<b>TOTAL</b>	<b>390 553</b>	<b>130</b>	<b>44</b>	<b>-86</b>

Sources: Population figures from National Statistics Office, "Population and Housing Census 2008, Population projections." November 2010. To estimate the population level in 2012, an estimate of 4 percent annual increase was used. Number of skips available acquired from the City council.

As Table 2 shows, the number of skips allocated was inadequate to cater for the waste being generated by the population in the areas. The number of skips available for use as receptacles for the high populated areas of Lilongwe City Council was less than required in all the areas except Area 1. In total there was a variance of 86 skips. In year 2010/11 a plan to increase the number of skips from 80 to 150 was conceived, but by the end of 2011/12, it had not been implemented.<sup>25</sup>

### ***Management Comment and Responses: Lilongwe City Council***

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<sup>24</sup> Interviews and report on studies of environmental policy and laws in Malawi

<sup>25</sup> Strategic Equipment and Infrastructure to improve Solid Waste Management services in the city of Lilongwe (January 2011) and Lilongwe City Council November 2009, City Development Strategy for 2010-2015

*There was no management comment and response from Lilongwe City Council on the finding.*

**Blantyre City Council: Distribution of Skips**

As depicted in table 1, 30% of the total skips in Blantyre City were allocated to serve the public. This led to irregular collection of wastes and the skips would be filled up to the maximum with overflowing wastes as seen in picture 1 at Ndirande Market.

*Picture 1: Overfilled skip at Ndirande Market in Blantyre City (June 2011)*



Source: Physical observation 2011

Despite having waste banks in markets to supplement on the number of skips, the banks were left to be filled up without being emptied. This resulted into wastes being damped anyhow and accumulated outside the waste banks as seen picture 1 at Bangwe Market in Blantyre City Council.

*Picture 2: Filled up solid waste bank at Bangwe Market in Blantyre City captured on 24th September 2011*



Source: Physical Observation 2011

### ***Management Comment and Response: Blantyre City Council***

*Management Of Blantyre City Council agrees with the observation on inadequate number of skips in the community and that the current scenario appears to have more number of skips in Private premises (i.e. companies). Among the reasons for this situation is that there has been a rapid increase in informal settlements requiring skips for collecting garbage without a corresponding increase in the council's capacity to procure more skips for those communities as the council realises most of its income from property rates which could not be collected from these kinds of settlements. Secondly, Lack of local manufacturers of skips has resulted into a complicated procurement process from sources outside the country and the costs are too high. However, the Council has now taken a step since 2013 to repair worn out skips to maintain reasonable numbers of skips in the community, and as budgeted for some new ones to be procured in the fiscal year 2014/15.*

### ***Management Comment and Response: Zomba City Council***

*In Zomba City we have never had skips. Instead, we use refuse bankers placed in various places: market places, communities especially in peri-urban areas where we do not provide curbside/door-to-door due to poor road networks in these areas. All these are largely on public places. Private companies use their respective containers/storage facilities (bin houses eg– chanco cafeteria and Kuchawe Hotel....) from where we collect refuse*

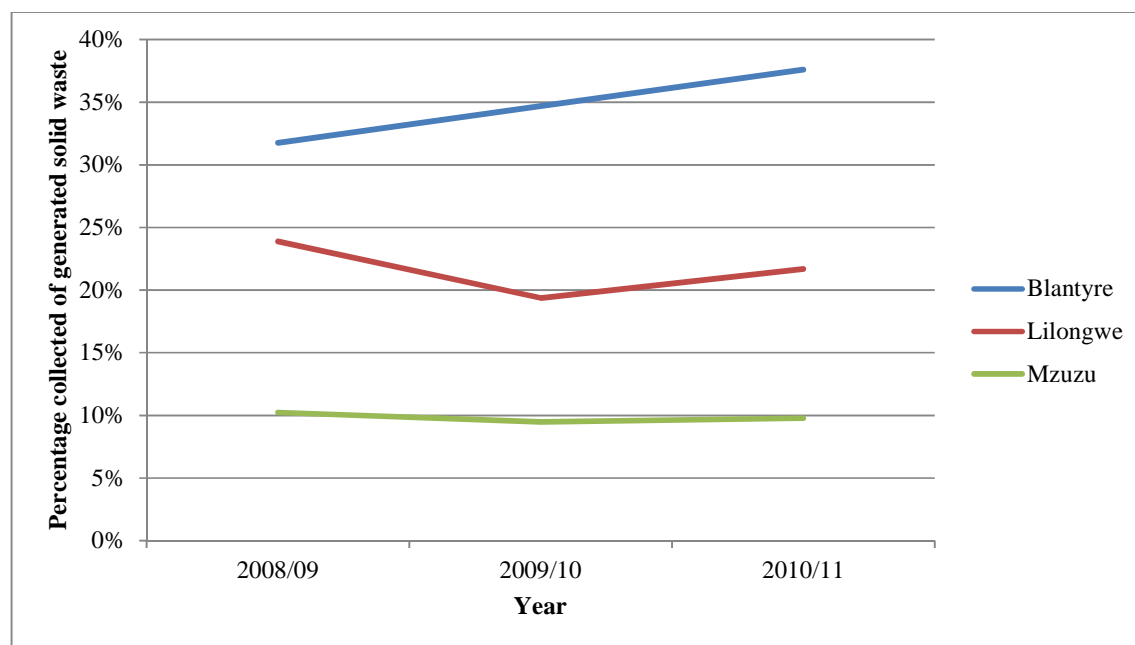
periodically. Furthermore, we do not establish collection point in every place or part of the city. These are largely in strategic points based on:

1. rate of refuse generation
2. Accessibility of places by other collection means: door-to-door or curb-side.

#### 4.1.2 Solid waste collection

Councils are required to establish, maintain and manage services for collection and removal of waste. The waste generated increased with an average of 7% annually in the cities during the period 2008-11. Figure 2 presents how much of the generated waste that was collected in Blantyre, Lilongwe and Mzuzu in this period.

Figure 2: Collected waste compared with generated waste



Source: Waste collection monthly reports

Figure 3 shows that the amount of generated waste collected is varying among the cities. While Blantyre collected about 37 % of the waste generated in 2010/11, Lilongwe collected 22 % and Mzuzu slightly below 10 %. The collection rate improved in Blantyre from 2008 to 2011, while in Lilongwe and Mzuzu there were no improvement.

Councils set up routines and collection schedules, as part of their plans that require waste to be collected twice a week in residential areas and on daily basis in business locations such as markets. For special collection points such as institutions and companies, the councils collect and dispose waste upon request.<sup>26</sup>

An analysis of waste collection vehicle logbooks established that the collection and disposal routines were not being followed properly. An average of 55% of the sampled collection points and routes in Blantyre City council were not visited in the months of May and November from 2008/9 to 2010/11. An analysis for Zomba City Council showed that 27% of the sampled routes and collection points were not visited in the 2008/9 to 2010/11 years. Lilongwe and Mzuzu City Councils were unable to provide the requested vehicle log books.

Despite having plans for collection and disposal of wastes, these plans were to a limited extent implemented. It must be noted that shortage of fuel in the country from the year 2010 had an impact on the implementation of the planned routines for waste collection and disposal.

### ***Management Comment and Response:Blantyre City Council***

*Management of Blantyre City Council observes that while it is desirable to have a waste collection schedule of twice a week in residential areas and daily in business locations such as markets, the current resources available allows for realistic schedule of collecting waste once a week in residential areas and daily for central business areas (CBD) of Blantyre and Limbe including the two produce markets of Blantyre and Limbe . The schedules for the rest of the markets located in other townships are categorised according to how much they generate waste such that collection is done once a week in some, twice or thrice a week in others. It should be noted that the seasonal changes on some types of farm produce*

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<sup>26</sup>Interviews, questionnaire responses and studies in Environmental Policy and Laws of Malawi

*notably sugarcane and banana waste tend to fillup skips faster in particur seasons. When this occurs, revision of collection schedule is required.*

*In this view and taking into account of realistic scenario for refuse collection schedule presented above, it may be assumed that the issue of 55% non adherable to collection schedule indicated in the report could be revised downwards to perhaps 25%.*

*The report also observed that the later during the period covered in the audit (2008-2011), the country experienced fuel scarecity that contributed to frequent cancellation of planned waste collection schedules and accumulation of garbage. Nevertheless, management have since prioritised waste collection vehicles when it comes to fuel allocation during lean periodsof revenue collection for the purpose of adhering to its waste collection schedule.*

*Lastly, our aged vehicle fleet have indeed contributed to cancellation of refuse collection schedules. Management is exploring ways of procuring new or reconditioning refuse collection vehicles from abroad to improve efficiency of our fleet.*

#### **4.1.3 The location and condition of the landfill disposal sites**

It is a requirement to have a license in order to operate a waste disposal site. If the conditions of the license are violated or the disposal site presents an environmental hazard, the license should be withdrawn. An Environmental Impact Assessment (EIA) is supposed to be conducted on an area identified to be utilized as a dumpsite. After which, a certification is provided warranting a license for operating a dumpsite.<sup>27</sup>

Landfill disposal sites are required to be fenced and have a weighbridge where waste collection vehicles are supposed to be weighed upon arrival. Wastes are supposed to be inspected before disposal. After depositing the wastes, compactors or dozers are supposed to be used to spread and compact the waste and finally cover them with soil daily. Before

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<sup>27</sup> Waste Management and Sanitation Regulations 2006 (49)

leaving the boundaries of the landfill, the vehicles are supposed to pass through a cleaning facility.<sup>28</sup>

The common method for solid waste disposal in Malawi is landfill dumping sites and rubbish pits. All Cities run crude dumping in landfill dumpsites which were not purposefully built. The Cities did not have separate disposal sites for specified wastes, such that both biodegradable and non biodegradable wastes found their way to the sites.

Physical observation of Mzedi in Blantyre, Area 38 in Lilongwe and Mchenga Utuwa in Mzuzu landfill sites disclosed that these dumpsites fall short of basic requirements as outlined below:

- The landfill dumpsites were neither fenced nor did they have weigh bridges for determining the quantities of wastes being disposed.
- There was no-one to inspect the wastes before it is dumped.
- Separation of wastes was not conducted.
- There were no ablution blocks, toilets and water for use by the dumpsite attendants.
- Wastes were being deposited without being compacted.
- The councils did not have compacting vehicles to be used for pressing and covering the wastes with soil.
- Wastes were burnt in order to reduce the quantities.

Physical observation also established that the landfill sites in Area 38 in Lilongwe and Mchenga Utuwa in Mzuzu were situated in areas near residential houses. There was also pollution of water in the nearby streams coming from the disposal sites in Area 38 in Lilongwe and Mchenga Utuwa in Mzuzu.<sup>29</sup> It was further noted that the Blantyre and Mzuzu dumpsites had exceeded their life span of 10 years.<sup>30</sup>

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<sup>28</sup> Environmental Impact Assessment Guidelines on waste, 2002 and Waste Management and Sanitation Regulations 2006 (52)

<sup>29</sup>Physical observation July and November 2011

<sup>30</sup>Interview Director of Health and Public services, Blantyre September 2011 and Mzuzu October 2011



Area 38 in Lilongwe and Mchenga Utuwa in Mzuzu were being operated illegally without a license.<sup>31</sup> An EIA was started on Area 38 dumpsite in 1997 but was not completed hence no report nor certificate issued.

The consequence of these short comings is a high risk of pollution of the land surrounding the dumpfills. Picture 2 shows wastes lying in heaps, burning uncompact and not covered with soil at Mzedi landfill.

*Picture 3: Solid waste left without being compacted and covered with soil but put on fire at Mzedi Disposal Site in Blantyre City (January 2012)*



Source: Physical observation 2012

#### ***Management Comment and Response: Blantyre City Council***

*Management of Blantyre City Council agrees with the observation regarding standards of our dumpsite at Mzedi and that it is equally concerned with the status quo of our dumpsite. For your information the current site at Mzedi should be should be our third site for the past 30 to 40 years and that the original dumping site at Mzedi was purposefully built and commissioned around 1993/1994. The site was estimated to last for 10 years hence it was indeed expected to be closed around mid-2000. However, due to the large area surrounding the dumping "pit" and unavailability of a separate piece of land away from residential areas in Blantyre City, we have continued disposing waste at the Mzedi dumpsite without a serious*

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<sup>31</sup>Presentation by Mzuzu city assembly at PPP/ISWM seminar in Lilongwe 7-11. December 2009, Interview with Director of Health and Social Services; Lilongwe City Council



*threat to surface run off of leachate and erosion posing pollution threat to nearby streams. A recent inspection of the site gives an impression that there is an increasing threat of rain water eroding the waste into the nearby stream if not abandoned soon.*

*So the main reason for not abandoning the site has been land scarcity in the city suitable for our next landfill site. Short term measures include adopting a borrow pit that has recently been dug for excavating soils for to construct the Blantyre-Zomba road and turn into dumpsite as a way of restoring the original landscape of the area. It is important to note that an environmental analysis on this new site has been done involving ministry of environment and climate change officials at district level as the zoning of the site is not an issue at the moment since it is adjacent to the old purposefully built dumpsite at Mzedi and far from nearby streams and residential areas. Long-term plans include relocating to a proposed site past Chigumula township Blantyre city south but the land belongs to government ministry of lands and thus we are waiting for their consideration.*

*As for disposing waste at separate disposal sites consisting of biodegradable and non-biodegradable, the problem is that waste is separated at collection and that is not practical for the city council to carry out separation at the dumpsite as it is labour intensive . We propose enacting a law on separation at a source and then increasing the number of vehicles to go twice for a single route or designing the vehicles/skips to be able to collect/capture waste in separate spaces according to biodegradable and non-biodegradable.*

*A more sustainable way to separate waste is by having a law that will result in manufacturers of non-biodegradable materials to be involved in recycling of the same. Glass manufacturers or importers, plastic manufacturers or importers. We are aware of the non-recyclable plastic ban that the government has put in place to be effected by June 2014. These regulations will give value to that kind of waste and make the community to see a wealth value for the waste thereby assisting in separating and collecting waste. Other investors could be coerced to use organic waste into manure or bio-energy.*

*Our dumpsite attendants are always instructed to inspect waste before disposal, as such we will ensure that they are supervised on adherence to this good practice . The presence of scavengers at the dumpsite is the cause of fire that was observed as they like to burn suspected infectious waste to permit them a perceived safe access to the dumpsite area. Lastly, the absence of appropriate machinery to do the compacting and spreading at dumpsite is the reason the council does not bury the waste on daily basis since hiring has proved to be*

*unaffordable. Instead, we hire such machinery for one week duration at least three times a year to do the spreading and burying waste with the soil as the only affordable way. We therefore propose external assistance in procuring the appropriate machinery for this purpose.*

***Management Comment and Response: Zomba City Council***

*The problem of disposal facilities being located near residential is in actual sense the opposite. People follow these sites than cities locating them as such. These were initially isolated but due to the growing pressure on residential places, people have opted to more or less encroaching these sites. Besides, most of such developments are largely illegal as they happen behind the back of city authorities largely because they are located in places beyond the control of city councils in an attempt to taking them away from residents. Land ownership is also a challenge in Zomba. It is not clear whether communities were compensated or not. The current practice is filling gravel pits. There is need for central government support on this issue.*

**4.1.4 Disposal of medical waste**

The Ministry of Health through the Central Medical Stores uses the City Council dumping sites for disposal of expired drugs and damaged or used medical supplies and equipment. This includes, amongst others, drugs, syringes, sutures and vials. Medical drugs are supposed to be treated as special waste and should therefore be crashed or burned before final disposal.<sup>32</sup>

Physical observation on the dumping sites established that medical wastes were being dumped without being crushed. They were burnt but the bottles and vials were left as shown in picture 4. The disposing of drugs and medical supplies without following proper procedures leads to serious health risk of living things.

*Picture 4: Improperly disposed medical waste at Mchenga Utuwa disposal site in Mzuzu City (4<sup>th</sup> July, 2011)*

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<sup>32</sup> Report on Blantyre City Assembly (BCA,2010)



Source: Physical observation 2011

### ***Management Comment and Response: Blantyre City Council***

*Management has observed that this issue may have been observed specifically in a dumpsite belonging to our sister City of Mzuzu where picture 4 in the audit report was taken. We would like to assure you that Blantyre city council follows what the medicines and poisons act recommend that destruction of medical waste particularly expired drugs is carried out in the presence of the team of police officers, pharmacy professions and environment/health inspector. The method used is by burning and immediate burying. Medical waste may as well encompass infectious waste from hospital environments and homes. In this view our major hospitals have incinerators within its proximity to be able to burn such infectious waste and avoid danger of infecting the community or polluting the environment with infectious agents. As for smaller private clinics that generate medical waste, a recommendation is made for the to partner with clinics that have incinerators and be able to transport safely from their clinic to incinerator for burning and disposal. We intend to conduct an audit of their waste management practices. However, we are experiencing challenges regarding disposal of medical waste from home environments whereby sanitary pads and wound dressings have been mixed with municipal waste (i.e. non infectious household waste) and eventually disposed at the dumpsite.*

*We feel it is the high time that the communities get sensitised to wrap such kind of waste in separate bags that will then require the council to construct incinerators or partner with hospitals for burning and disposal.*

### **Management Comment and Response: Zomba City Council**

*Medical wastes are disposed with full supervision and knowledge of the ministry of health, poisons board and city councils. Noxious wastes are largely incinerated and not disposed of at these disposal sites especially in Zomba.*

#### **4.1.5 Illegal disposal and dumping of wastes**

It is illegal to deposit in a stream, river, or public place any solid waste, anything liquid or solid, which is likely to be injurious to health.<sup>33</sup>

Physical observation established that wastes were being disposed in rivers and streams. One cause is probably the failure to adequately provide waste collection services by the Councils in the areas close to the rivers. Table 3 shows affected rivers in Blantyre, Lilongwe and Mzuzu. Picture 3 and 4 shows examples of pollution observed at Kachere Stream, Ndirande Market Stream in Blantyre City and Lunyangwa River in Mzuzu City.

Table 3: List of polluted rivers and streams in the city councils

<b>Blantyre</b>	<b>Lilongwe</b>	<b>Mzuzu</b>	<b>Zomba</b>
Nasolo river	Lilongwe river	Mzuzu airport stream	Likangala River
Mudi river	Kaliyeka Stream	Lunyangwa stream	Bwaila River
Litchenza river	Matchansi stream		

Source: Physical observations 2011

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<sup>33</sup> City Assemblies by-laws 2002

*Picture 5: Kachere Stream in Blantyre City closed by solid waste captured on 26th June 2011*



Source: Physical observation 2011

*Picture 6: Nasolo River at Ndirande Market flooded with solid waste in Blantyre City captured on 26th June, 2011*



Source: Physical Observation 2011

### ***Management Comment and Response: Blantyre City Council***

*The management agrees with this observation and that is our concern particularly that disposal of waste in or surrounding the rivers and streams has a greater potential of spreading the pollution for longer distances and affect more people in the process as the products of waste decomposition are carried by the surface waters in rivers and streams. Hence communities are not justified to dispose their waste in the rivers and streams instead their encouraged to carry their waste to designated sites in the neighbourhood.*

*The first problem is that allocating skips near rivers and streams has its challenges due to inaccessibility of these by our skip collecting vehicles.*

*Secondly, residents in these areas do not own litter bins at household level so that they find it tiresome to walk on daily basis for disposal of waste in designated skip sites at a distance but reasonable enough for a short walk carrying a litter bin to dispose in skips once or twice a week.*

*We would use existing structures of extension workers to conduct civic education on dangers of disposing waste in rivers and ownership of litter bins. Penalties may be another way but the identification of culprits would rely on neighbourhood watch unlike the use of council inspectors or enforcement teams since disposal is usually carried out early morning hours or at night.*

## 4.2 TREATMENT OF LIQUID WASTE

Conventional sewerage plants are available in the cities of Blantyre, Zomba and Lilongwe. Mzuzu City Council has no sewerage treatment plant but uses oxidation ponds, septic tanks and pit latrines as means of liquid waste disposal.

Table 4 shows the condition of the water treatment plants in Blantyre, Lilongwe and Zomba in 2011.

*Table 4: Water treatment plants in Blantyre, Lilongwe and Zomba City Councils*

Name of the council	Name and condition of water treatment plant	
	Operating	Not operating
Blantyre City	Soche and Blantyre	Chirimba, Limbe and Maone
Lilongwe City	Kauma	Kanengo, Cold Storage and Lumbadzi
Zomba City	Chikanda	Two sludge pond

Source: Interview and physical observation made during the audit 2011

Table 4 above shows that 60% of the water treatment plants in the city councils were not operational. Chirimba, Maone and Limbe waste water treatment plants in Blantyre City stopped operating in 2008, 2007 and 2009 respectively. Lumbadzi plant in Lilongwe City stopped operating in 2006. The councils were unable to provide information on the rehabilitation work and the costs incurred to date for the plants. Maintenance of the sludge digesters at Chikanda Waste Water Treatment Plant in Zomba City Council was done in 2002,



and only one was operational. The other two have had blockages since 2006 (see picture 7). According to interview with the Director of Engineering, the plants were not operational due to sewer line blockages, vandalized manholes and damaged pipes.

*Picture 7: Blocked sludge digester at Zomba City Council waste water treatment plant (September 2011)*



Source: Physical Observation 2011

***Management Comment and Response: Blantyre City Council***

- *A contractor trading as Non Ferrous Industries is currently rehabilitating Blantyre(Manase) Waste Treatment Plant. The remaining two have their own rehabilitation budgets included in the 2014/2015.*

The effectiveness of the water treatment plant is determined by the quality of water discharged by the plant as an end product. None of the City Councils were monitoring the quality of the water discharged. Interviews with the sewage supervisors established that biological assessments<sup>34</sup> were not carried out. The councils have laboratories, but they are not operational (see picture 8 and 9 for an example).

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<sup>34</sup> A biological assessment of water quality involves monitoring of the survival of living organisms in the ponds where the treated water is discharged.

*Picture 8: Laboratory at Zomba waste water treatment plant in Zomba City captured on 30<sup>th</sup> September 2011*



Source: Physical observation 2011

*Picture 9: Soche Waste Water treatment plant Lab in Blantyre City (July 2011)*



Source: Physical observation

According to the 2010 waste management report of Blantyre City Council, the laboratory lacks equipment and chemicals.<sup>35</sup> When the effectiveness of the waste water treatment plants is not monitored, there is a risk that polluted liquid waste is discharged into rivers. Table 5 shows the waste water treatment plants and rivers where effluent is discharged.

*Table 5: Rivers where effluent is discharged from water treatment plants*

Name of Council	Water treatment plant	River/stream where liquid waste is discharged

<sup>35</sup> Blantyre City Council waste management report, August 2010.



Blantyre City	Soche	Mlambala River
	Blantyre	Mudi River
	Limbe	Limbe River
Lilongwe City	Kauma	Lilongwe River
Zomba City	Chikanda	Likangala River

Source: Physical Observation

### ***Management Comment and Response: Blantyre City Council***

- *The council has taken some steps on this issue ; It has recruited the chemist to manage the Laboratory operations and has procured various laboratory apparatus/equipment.*

In Blantyre there was an increase of sewer pipes blockages caused by poor usage by the general public, pipe sizes against growing population, sewer pipes ageing, pump failure and vandalism.<sup>36</sup> The council was experiencing increased contamination and pollution of rivers. Picture 10 shows Mudi River which is experiencing massive pollution from sewage which comes from faulty sewer lines.

*Picture 10: Mudi River polluted with sewerage and industrial liquid waste (September 2011)*



Source: Physical observation

### ***Management Comment and Response: Blantyre City Council***

- *Most of the vandalised steel sewer lines are being replaced with asbestos pipes but this will take long due to the gravity of the problem.*

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<sup>36</sup> Blantyre City Council waste management report, August 2010.

Sludge which comes out after liquid waste has been treated could be used as manure. At Soche waste water treatment plant in Blantyre City (see picture 11) sludge was left idle close to the plants.

*Picture 11: Sludge left close to the treatment plant without proper care at Soche waste water treatment plant in Blantyre City (June 2011)*



***Management Comment and Response: Blantyre City Council***

- *The public has been sensitised on the importance and availability of sewage manure, this has attracted more people who are currently patronising the sewage section for manure collection every Wednesday.*

## **4.3 HOW THE COUNCILS ORGANIZE AND MANAGE WASTE COLLECTION AND DISPOSAL**

### **4.3.1 Management of solid and liquid waste in the city councils**

Management of solid and liquid waste is organized under two directorates in Blantyre and Lilongwe City Councils. The Director of Engineering Department is responsible for the operations, rehabilitation and maintenance of the sewer lines and sewerages. He is also responsible for the maintenance and acquisition of solid waste collection and disposal vehicles. The Director of Health and Social Services under cleansing services is responsible for collection and disposal of solid waste, street cleaning and emptying of septic tanks. The organization setup is different in Zomba and Mzuzu City Councils where both solid and liquid wastes are managed under the Directorate of Health and Social Welfare Services. On the other hand, all vehicles including waste collection vehicles are managed by the Transport Officer under Administration Department.

Interview with the Director of Engineering in Blantyre City Council showed that managing solid and liquid waste under different departments posed a challenge in terms of reporting, monitoring and maintenance of waste collection and disposal.

### ***Management Comment and Response: Blantyre City Council***

*Management acknowledge the opinion presented by the engineering department. This is longer a worrisome challenge if at all there is any. We would understand that even at national level we have specialised institutions to support the operations of government functions. For instance , PVHO is specialised in maintenance of government vehicles but that does not mean they carry out functions intended for that vehicle.*

*Likewise , the health department by virtue of its staff composition specialised in environmental health issues are rightly placed to handle waste management activities on especially solid waste. As for liquid waste which partly managed through sewer system which operate entirely as engineering system including chemical engineering, then the engineers and chemists are the right professions to handle its operations.*

*The council has one financial office regardless of departmental functional specialisation, and we have one transport office that oversees performance of fleet and transport personnel. All vehicles regardless of department go through the engineering workshop when it requires servicing; it is the workshop that recommends major service by an external garage. We will however improve communication between the two departments.*

#### **4.3.2 Establishment and implementation of waste management plans in the councils**

It is a requirement for all councils to lay down their objectives and strategies in a strategic plan as a management and internal control tool. COSO has developed an internationally recognised framework for internal control.<sup>37</sup> Internal control is broadly defined as a process, instituted by an entity's board of directors, management and other personnel, designed to provide reasonable assurance regarding the achievement of objectives in the following categories:

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<sup>37</sup> "COSO" stands for —The Committee of Sponsoring Organizations of the Tread way Commission. The text below is based on an Executive Summary of COSO's —Internal Control — Integrated Framework|| ([www.coso.org/publications/executive\\_summary\\_integrated\\_framework](http://www.coso.org/publications/executive_summary_integrated_framework)).

- Effectiveness and efficiency of operations
- Reliability of financial reporting
- Compliance with applicable policies, laws and regulations

Documentary analysis shows that all the Councils have established objectives and strategies for collection and disposal of waste. Waste collection reports were available from Blantyre, Lilongwe and Mzuzu City Councils, except Zomba.

Councils faced challenges in implementing objectives and strategies that were laid down to ensure efficient and effective collection and disposal of waste. Review of skip allocation records and physical observation disclosed that the councils had neither increased the number of skips nor erected concrete street litter bins along the busy streets. Wastes were being improperly deposited in the streets and residential areas causing nuisance to the inhabitants.

The number of waste collection vehicles had not been increased hence failure to meet the targets of waste collection frequency of once per week in the residential areas and daily in the market places. It was noted through waste collection vehicle logbook analysis that 62% of the waste collection point experienced under-collection frequency as compared to targeted frequency.

Collection point and routine programmes for waste collection and disposal were put in place but their implementation were hampered by challenges such as lack of tools and equipment, protective clothing, non-operational vehicles, proper monitoring and inadequate funding allocation for waste management.

### ***Management Comment and Response: Blantyre City Council***

*Management acknowledges the challenges being faced in having few litter bins, vehicles and various equipment for handling waste. We want would to clarify that it is not an issue of priority not being given to managing waste , for instance fuel allocation waste collection is highly prioritised at present. However, the revenue realised from the residents does not much with the increase in waste being generated as result of increased activities in the city most of which are informal settlements. Procurement of capital items has transpired to be unaffordable . We are therefore looking forward to external assistance to bail out this situation and meet our objectives and strategies. We may need to change the strategies in*

*some circumstances, specifically by adopting waste management streams and influencing the community to take part.*

#### 4.3.3 Funds allocated for waste collection and disposal

Councils are required to adequately finance waste collection and disposal tasks to ensure clean environments in cities and districts.<sup>38</sup> Major sources of funding for the running of the councils' activities are the General Resource Funds (GRF) also referred to as Other Recurrent Transaction (ORT) funds from the Central Government budgetary allocation and Locally Generated Revenues (LGR) from disposal fees, city rates and market fees.

In the cities, waste collection and disposal is financed from LGR. The income and expenditure structure for the councils' GRF do not include activities on waste management. The councils were unable to ascertain the funds allocated and spent on waste collection and disposal however the amounts provided were for Environmental Health Department within the Council which only handled issues of solid waste collection and disposal.

An analysis of the total funding for the councils from the available sources of funding and the actual funds allocated for waste management in table 6 indicated that councils allocated funds ranging from 0.05% to 2.53% towards waste management during the period 2009 to 2011.

*Table 6: Funds allocation for waste collection and disposal in the cities of Blantyre, Lilongwe and Mzuzu*

FINANCING WASTE COLLECTION AND DISPOSAL						
	Blantyre City Council		Lilongwe City Council		Mzuzu City Council	
Year	2009/10	2010/11	2009/10	2010/11	2009/10	2010/11
ORT	78,833,882.00	81,850,000.00	2,000,000.00	5,000,000.00		
Disposal Fees	21,487,708.00	11,806,816.30	3,000,000.00	4,000,000.00		
Market Fees	72,238,685.00	59,599,148.00	38,000,000.00	35,000,000.00	30,517,161.00	39,151,315.00
City Rates	888,034,175.00	555,924,335.44	960,000,000.00	550,000,000.00	57,972,877.00	49,867,266.00
<b>Total funding</b>	<b>1,060,594,450.00</b>	<b>709,180,299.74</b>	<b>1,003,000,000.00</b>	<b>594,000,000.00</b>	<b>88,490,038.00</b>	<b>89,018,581.00</b>

<sup>38</sup>Local Government Act 1998 chapter 34.02 6(11)

Actual funds allocated towards waste collection and disposal	21,487,708.00	14,104,786.74	12,000,000.00	15,000,000.00	47,750.00	62,000.00
% of Actual allocated funds	2.03%	1.99%	1.20%	2.53%	0.05%	0.07%

Source: City Councils Budgets

Interviews with Directors of Health and Social Services in the city councils revealed that the funding allocation was for the day to day running of the department including acquisition of protective clothes, tools and equipment such as litter bins, wheelbarrows and brooms. The funds were meant to cater for gathering and storage of solid waste which fall in the first stages of the solid waste management stream. The councils could not ascertain how much funds were allocated for collection, transportation and disposal of solid waste which were deemed to be capital investments.

#### ***Management Comments and Response: Blantyre City Council***

*Management would like to point out that the 2% expenditure was a result of procurement of routine materials such as brooms and personal protective equipment. However, a large proportion of funds allocated to waste management is spent for buying fuel and vehicle maintenance as well as hiring machinery for managing the dumpsite periodically. This was not captured by the financial reports due to misallocations since all fuel expenditures and vehicle maintenance are captured under different departments including administration and engineering.*

#### ***Management Comments and Response: Zomba City Council***

*Other sources of funding are external donors such as MEET but of course for specific projects. Large funding for the council goes to salaries and maintenance of vehicles. Funding generally was based on ad hoc as need arises due to limitations.*

#### **4.3.4 Waste collection vehicles**

Availability of vehicles is critical for waste collection. Councils use skip carriers and compactor trucks to transport wastes to the disposal sites from either skips or from bins.

Table 6 shows the number of waste collection vehicles and skips available in the city councils.

*Table 3: Waste collection vehicles available in city councils*

Name of council	Total number of waste collection vehicles	Number of operating waste vehicles	Number of grounded waste vehicles	No. of Skips	% of operating waste collection vehicles
<b>Blantyre City council</b>	15	6	9	100	40%
<b>Lilongwe City Council</b>	17	7	10	80	41%
<b>Mzuzu City Council</b>	5	1	4	20	20%

Source: Interview and physical observation

Lilongwe City Council had seven operating waste collection vehicles, representing 41% of the available waste collection vehicles which were required on daily basis to transport and dispose about 80 skips. Blantyre City Council had six operating waste collection vehicles representing 40% of the available waste collection vehicles, required to transport and dispose 100 skips. Mzuzu City Council had one operating vehicle against 20 skips representing 20% of the available waste collection vehicles.

City Councils Engineering Departments have maintenance workshops with allocated human resources to service, maintain and repair council vehicles. However, the City Councils were outsourcing maintenance services to private contractors. Some vehicles with minor faults were parked without being repaired and maintained due to lack of spare parts and equipment. Payment of salaries for employees who in most cases were idle proved to be expensive and uneconomical. List of grounded vehicles and their faults for Blantyre, Lilongwe and Mzuzu City Councils is provided in Appendix 3

### ***Management Comments and Response: Blantyre City Council***

*Management acknowledges this observation. The reasons behind this challenge are partly due to unavailability of vehicle spare parts and equipment as alluded to in the report compounded by the complexity of the procurement of spare parts from private traders in bulk is a challenge in practice as it requires a high level of discipline for those handling them.*

*The vehicles in question are mostly aged that require major maintenance such as overhaul and thus cannot be handled by the local workshop.*

#### **4.3.5 Monitoring of Waste Management by Councils' Management**

Councils are required to have monitoring mechanisms in place to ensure compliance to the waste collection and disposal plans and legal requirements.<sup>39</sup>

Interviews with members of staff at the sewages in all the cities revealed that monitoring visits to the water treatment plants were not executed.

Mzuzu City Council devised forms and registers to monitor how waste management was operating. However this system was not operational. Blantyre City Council had devised forms for monitoring, but these were not implemented. The consequence of lack of monitoring is that the Councils did not have control of whether legal requirements of environmental management were complied to.

The councils devised a system to ensure that daily monitoring is adhered to through the engagement of Capitaos, foremen and the directors, but this was challenged by poor communication among the operators and lack of sufficient resources.

#### ***Management Comments and Response: Blantyre City Council***

*Management has taken note of the observation and assures of our commitment to improve monitoring and supervision of our operations. Additionally, we have noted our gap in middle managers who would be crucial in this task but we are awaiting local government service commission to recruit for us despite other challenges in our overall resource availability including transportation for intensive supervision*

#### ***Management Comments and Response: Zomba City Council***

*This is not true reflection for Zomba. We periodically visit them but do not sign a register. Besides, monthly reports, site visits and monthly meetings provide another fora for supervision.*

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<sup>39</sup>International standards for internal control in the public sector, INTOSAI GOV 9100 (“Guidelines for Internal Control Standards for the Public Sector”)

[http://www.issai.org/media\(574,1033\)/INTOSAI\\_GOV\\_9100\\_E.pdf](http://www.issai.org/media(574,1033)/INTOSAI_GOV_9100_E.pdf)



#### 4.4 HOW THE MINISTRY OVERSEES AND DEVELOPS THE WASTE MANAGEMENT AREA

Ministry of Local Government and Rural Development is one of the key stakeholders to implementing one of the key priority areas of the Malawi Development Growth Strategies (MGDS) called “Climate Change, Natural Resources and Environment Management”. It is expected to supervise and monitor the functions of the Councils. This includes monitoring whether the management of waste is done in an economic, efficient and effective manner. The Ministry is expected to oversee whether legal requirements of environmental and waste management are adhered to. The Malawi development charter program requires that the Ministry of Local Government and Rural Development monitors the performance of the councils through monthly visits and use of an annual performance assessment instrument.

If there are general shortcomings in the area or new developments occur, the Ministry is expected to take appropriate action. This is supposed to be done through setting of policies, providing guidelines and best standards regarding solid and liquid waste management.

A review of documents disclosed that there are several legal instruments addressing the area of sanitation and waste and these are presented in **Appendix 4**. The audit established that the legal instruments on waste are scattered in a number of sectors and address issues of health and safety and that there are other institutions also involved in waste management issues. These are presented in **Appendix 5**. It was noted that enforcement of the laws and the penalties outlined in those instruments was lacking. This contributed to increase in waste generation and its careless disposal by residents and the councils.

The Ministry did not call for any reports related to the waste management area from major councils. Management and performance reports from the Councils that are supposed to be sent to the Ministry were not provided to the auditors at the time of exercise.

**Management Comments and Response**

*The Ministry of Local Government and Rural Development did not provide Comments relating to this finding.*

**Management Comments and Response: Zomba City Council**

*The ministry does not have a technical arm to ably undertaken such supervisions and provision of urban health in general. There is no directorate for urban development at the ministry but that of rural development only. This largely contributes to such lack of supervision. The urban development in Ministry of Housing is not linked to cities and has narrow scope. Hence the need for establishing urban directorate at the ministry which shall link with other ministries on urban development including that of housing. However, this is currently a paradox.*

## 5 CONCLUSION

Waste management is an important factor in safeguarding human health and environmental protection.

The audit revealed that there are serious challenges related to waste management in Malawi. A large proportion of the solid waste generated is not collected. On average the city councils manage to collect and dispose-off less than 30% of the total generated solid wastes. This is partly due to lack of sufficient facilities such as skips and waste collection and disposal vehicles.

The methods of waste disposal are not appropriate as the landfill dumpsites do not meet the required standards. The landfill dumping sites that are used are not purposefully built and lack weigh bridges, fence, ablution blocks, toilets, tapped water and compacting vehicles. Solid waste is also being disposed in rivers and streams leading to pollution.

Treatment of liquid waste was not up to standard. None of the councils are testing the quality of the water discharged after treatment. There is an increase of sewer pipe blockages, contamination and pollution of rivers. There is also a failure to monitor the quality of effluent from industries and residential areas entering the sewage system. This creates a risk of health hazard and vulnerability especially to the population that uses the water from the streams.

City Councils are not collecting waste according to their established frequencies. They are unable to maintain and replace waste handling equipment.

Proper maintenance of vehicles is critical for waste collection. The City Councils have a potential for more economical maintenance through better utilization of their own workshop facilities for maintenance of vehicles.

Monitoring by the council management was not efficient as evidenced by the lack of enforcement of the monitoring mechanisms that were put in place. As such, council management was not aware of the shortfalls in waste management.

The Ministry of Local Government and Rural Development does not monitor the councils' operations regarding waste management. Waste management performance reports were not available. When the Ministry is not monitoring Councils on how they are managing waste, it does not ensure compliance with environmental laws in the area. It does also have a poor basis for addressing general challenges arising in the area, for instance, by formulating new policies, staff training and guidelines.

Over the past years, the amount of non-biodegradable waste has increased in Malawi. This represents a challenge that requires active engagement by the Ministry. There is absence of waste management law addressing the waste management strategies based on waste management stream. The existing legal instruments on waste are scattered in a number of sectors and only address issues of health and safety. The "polluter pays" principle regarding waste generation is not enforced which has contributed to non-separation of waste at source, littering, non-reuse and recycle enabling environment.

## **6 RECOMMENDATIONS**

### **6.1 SOLID WASTE COLLECTION AND DISPOSAL**

Councils should come up with a mechanism that would help reduce waste generation. Incentives should be introduced to ensure that households are engaged in recycling the recyclable waste. Law should be put in place to ensure the use of recycling and reuse strategies. Companies that package their products in plastics and glasses should be requested to have these packages recycled and reused. Punitive measures should be put in place and enforced to discourage mismanagement of waste.

The councils should ensure that plans on increasing the number of collection facilities such as skips, bins in residential areas and collection vehicles are implemented. Allocation of waste collection facilities should be based on population size and strategic point to ensure collection efficiency in terms of quantity.

Councils should follow the standards pertaining to landfill dumpsites. They should ensure that the dumpsites are properly fenced and provided with proper security. They should ensure that the dumpsites are well equipped with required facilities.

### **6.2 LIQUID WASTE MANAGEMENT**

Councils should ensure that chemicals are made available in the laboratories for determining quality of the discharged effluent. Waste water treatment plants that are not operational should be rehabilitated. They should work on the broken sewer lines to ensure that liquid waste is directed to the treatment plants. Penalties for pollution of water in rivers and stream should be enforced to curb the occurrences.

### **6.3 MANAGEMENT OF WASTE BY THE COUNCILS**

The City Councils should ensure that By-laws on the waste management are put in place and enforced on waste management. Councils should put waste management as one of the priority areas and allocate adequate resources to enable achievement of its goals and objectives. They should also ensure proper coordination among the departments that take a role in waste management issues within the councils. Councils need to improve on their collection efficiency to meet their set targets. They should use the available human and financial resources to

maintain the waste collection vehicles with minor faults in order to supplement to the number of operating vehicles to ensure large coverage of waste collection.

#### **6.4 HOW THE MINISTRY OF LOCAL GOVERNMENT AND RURAL DEVELOPMENT OVERSEE WASTE MANAGEMENT BY THE COUNCILS**

The Ministry should ensure that legislation and guidelines on waste management are put in place that would address issues in both solid and liquid waste management streams.

There should also be a mechanism to allow and ensure enforcement of the legislation.

It should ensure that councils' performance on waste management issues is monitored as required by the Malawi Development Charter Programme.

## 7.0 APPENDICES

### APPENDIX 1: DOCUMENTS ANALYSED

- Strategic plans for Department of Environment, Blantyre, Lilongwe and Mzuzu City.
- Local Government Act 1998
- Environmental Management Act 1996
- Bye-laws for Blantyre, Lilongwe and Mzuzu
- Environment Impact Assessment Guidelines- Sanitation and Waste 2001
- National Environmental Policy 2004
- Constitutional Requirement on Environment in Malawi<sup>40</sup>
- Studies in Environmental Policy and Laws in Malawi 2001<sup>41</sup>
- Agenda 21 Country Profiles report to the World Summit on Sustainable Development 2002<sup>42</sup>
- National Statistical Office Population Census 2008
- Environmental Reports from Environmental Officers in the councils
- Solid waste management – Keeping Cities Clean – The Malawi experience by Prof. D.S.J Mkandawire
- INTOSAI Working Group on Environmental Auditing Towards auditing management of waste
- Budget documents for Blantyre, Lilongwe, Mzuzu City Councils
- Refuse and rubble disposal By-Laws, 2002 for city councils
- National Sanitation Policy (NSP) (Malawi Government 2008)
- National Water Policy (NWP) (Malawi Government 2005)
- Environmental Impact Assessment Guidelines
- UN-Habitat report on Malawi: Lilongwe Profile (2011)

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<sup>40</sup> Environmental Affairs Department-www.sndp.org.mw

<sup>41</sup> UNEP/UNDP/Dutch joint Project on Environmental Law and Institutions in Africa

<sup>42</sup> Environmental Affairs Department

**APPENDIX 2: LIST OF COLLECTION POINTS AND ROUTES USED FOR  
DETERMINING COLLECTION FREQUENCY**

<b>Blantyre</b>	<b>Zomba</b>	<b>Lilongwe</b>	<b>Mzuzu</b>
Bangwe Market	Chinamwali Market	Bwalo la Njovu	Kaning'ina
Chemusa Market	Mangasanja/Old Naisi	Chilinde Market	Chimaliro
Kachere Market	Likangala Sec School	Mchesi Market	Namizu
Likotima Market	Ngongomwa Market/ Mponda Bwino	Area 18 Market	Central Hospital
Malekano (Manase)	Mapale	Area 23 Market	Taifa market
Namiwawa	Ndola	Area 25 Market	
PMS clinic	Chancellor College	Area 21 route	
QUECH	Old Naisi	Area 10 route	
Saleta Ndirande		Area 2 route	
Thawale Market		Area 4 route	
		Kawale 1 route	
		Area 8 route	



### APPENDIX 3: LIST OF NON OPERATING VEHICLES IN COUNCILS

Name of Council	Vehicle Reg. No	Vehicle description	Period of non operation (years)	Reason for non operation
<b>Blantyre City Council</b>	BM 6074	Nissan UD	1	Certificate of fitness and threads worn out
	BL 6865	Nissan UD	2	Tipping problem
	BL 913	Toyota Tippack	0.5	Rear body bent
	BL 915	Toyota Tippack	3	Shaft broken
	BL 916	Toyota Tippack	0.5	Gear box worn out
	BM 269	Iveco skip	2	Engine problem
	BL 1903	Iveco skip	1	Gear box worn out
	BP 1534	Tractor	1	waiting for trailer
	BP 1478	Trailer	1	Cross member was cut
<b>Lilongwe City Council</b>	BP 669	Iveco skip	0.5	Repair engine overhaul
	BK 1372	Mercedes Benz	3	Certificate of fitness and repair
	BK 1373	Mercedes Benz	6	Gear box problem
	BJ 9451	Toyota	0.6	Brake system
	LL 7	Mitsubishi	2	Engine overhaul
	BK 5496	Mitsubishi	7	Certificate of fitness and repair
	BL 1004	Iveco skip	2	Brake system
<b>Mzuzu City Council</b>	MZ 3087	Iveco skip	3.5	Mechanical faults
	MZ 4384	Nissan Town park	1	Spare parts
	MZ 4385	Nissan Town park	2.5	Spare parts and general services
	MG 286 UD	Nissan Diesel	5	Been grounded

## **APPENDIX 4: LEGAL INSTRUMENTS RELATING TO ENVIRONMENT SANITATION AND WASTE MANAGEMENT**

- *Environment Management Act No 23 of 1996 (Part VII sections 37, 38 and 39)*: This Act was promulgated as a direct response to the recommendations in the NEAP. The Act outlines the Environmental Impact Assessment (EIA) process to be followed in Malawi and requires all project developers in both the public and private sectors to comply with the process. The Act sets out the powers, functions and duties of the Director of Environmental Affairs (DEA) and the Environmental Affairs Department (EAD) in implementing the Environmental Impact Assessment (EIA) process. The Act specifies the types and sizes of projects, which should be subject to the EIA process and provides the enabling legislation to develop EIA guidelines to assist compliance with the EIA requirements. The Act states that any project that is listed as requiring an EIA cannot be licensed and implemented until a satisfactory EIA study has been completed and the project approved by the DEA. The project developer is required to implement any terms and conditions that the DEA may attach to the project approval. Non-compliance is an offence attracting strict penalties. EIA is thus a statutory requirement in Malawi. The Act give power to the Minister of Natural Resources and Environmental Affairs to make regulations, on recommendation of the council, to control the management, transportation, treatment, recycling and safe disposal of waste and for prohibiting littering of public places.
- *Environmental Impact Assessment guideline for waste management projects 2002*: They facilitate compliance with the Environment Management Act. They are aimed at integrating environmental concerns into national development strategies for all types of projects in both the public and private sectors.
- *National Environment Action Plan 1994 (NEAP)*: This was developed after Malawi Government had endorsed the 1992 Rio Declaration and subsequently had agreed to adopt the principles of Agenda 21. The NEAP is a Government undertaking to provide the framework for integrating the environment into the overall socio-economic development of the country through broad public participation. The NEAP recognised that inadequate waste management activities have resulted in water resources degradation and depletion; fish resources degradation (which indirectly contributes to loss of biodiversity); and human habitat degradation. Drainage from mines and reclamation of landfill sites, industrial and

hazardous waste, inadequate waste management by local government, and the lack of incentives for recycling have been linked with the increase of sediments (siltation) in the surface water as well as biological and chemical contamination of water resources. In urban areas, rudimentary collection, treatment and disposal of solid waste has led to a wide range of environmental problems including, dust, pests, informal waste collectors (scavengers), smoke, fires, unpleasant odors and reduction in aesthetics. In the rural areas, solid waste disposal management systems are yet to be established.

- *National Environment Policy 1996*: This is based on the findings of the NEAP. The NEP does not usurp the powers and responsibilities of sectoral ministries, but instead reinforces them and highlights areas of high priority for the nation. The NEP objectives address the broad range of environmental problems facing Malawi. The overall policy goal is “*the promotion of sustainable social and economic development through the sound management of the environment in Malawi.*”

The policy seeks to meet the following goals:

- secure for all persons resident in Malawi now and in the future, an environment suitable for their health and well-being;
  - promote efficient utilization and management of the country’s natural resources and encourage, where appropriate, long-term self-sufficiency in food, fuel wood and other energy requirements;
  - facilitate the restoration, maintenance and enhancement of the ecosystems and ecological processes essential for the functioning of the biosphere and prudent use of renewable resources;
  - enhance public awareness of the importance of a sound environmental understanding of the various environmental issues and participation in addressing them;
  - promote co-operation with other governments and relevant international/regional organizations, local communities, Non-governmental Organizations (NGOs), and the private sector, in the management and protection of the environment.
- 
- *Local Government Act 1998 (Section 24 and 103)*: It empowers the council to establish, maintain and manage services for the collection, removal, treatment and the disposal of

solid and liquid waste. It also gives power to councils to come up with bye-laws on sanitation and waste and enforce penalties if there is any breach to the laws.

- *Local Government Act 1966 (Urban Areas) CAP 22:01*: Part VIII of this section of the Act allows urban authorities to promulgate by-laws, some of which pertain to public health.
- *Local Government Act 1964 (District Areas) CAP 22:02*: Part IV of this section of the Act describes the powers and duties of district councils, some of which relate to public health and sanitation issues.
- *Public Health Act 1945 CAP 34:01*: Part IX relates to sanitation and housing nuisances. Defines what constitutes nuisance. States the author of nuisance and provides notice to abate nuisance. It also provides the consequences for failure to comply with notice and penalties in relation to nuisance. Part X deals with the issue of public sewers and places the duty on Local Authorities to provide public sewers and make provision for sewerage disposal
- *Estates Act CAP 33:01*: sets out sanitation facilities standards for settlements within estates.
- *Town and Country Planning Act, Chapter 23:10*.
- *Inland Waters Shipping Act, Chapter 71:10*.
- *Waterworks Act Chapter No. 17 of 1995 (Part V section 26 to 33 and Part VIII)*: Most of the provisions in this part are a repetition of those contained in the Public Health Act where provisions of public sewers and sewerage disposal work is by the local authorities.
- *Water Resources Act Chapter 72:03*.
- *Malawi Revenue Authority Act No. 14 of 1998*.
- *Blantyre Water Works Act, Chapter 72:02*.
- *Lilongwe Water Board Act, Chapter 72:04*.
- *National Parks Act, Chapter 66:07*.
- *Land Survey Act, Chapter 59:04*.
- *Occupational Safety, Health and Welfare Act No 21 of 1997*.

- *Treaties and Convention Publications Act, Chapter 16:02.*
- *Monument Act, Chapter 29:01:* protects areas of distinct natural beauty, sites and buildings.
- *Blantyre Sanitation and Effluent by-laws:* regulates the disposal of domestic waste.
- *Malawi Bureau of Standards Chapter 51:02.*

## APPENDIX 5: SECTORS AND OTHER INSTITUTIONS INVOLVED IN WASTE MANAGEMENT ISSUES

- The *Environmental Affairs Department* (EAD) in the Ministry of Natural Resources and Environmental Affairs is the leading environmental government agency in Malawi. EAD is responsible for the review and approval of EIAs and is therefore the key government contact for developers.
- The *Ministry of Health and Population* are involved in waste management as it relates to outbreaks of disease from uncollected waste or through landfills which may contaminate drinking water and food. Therefore it is in the interest of the Ministry is to have a clean environment in public and private places.
- The *Ministry of Water Development* is responsible for the protection of water resources. Waste facilities such as compost plants or landfills are a potential threat to the water resources. Therefore, the Ministry has to be involved in the development of waste management projects.
- The *Ministry of Labour and Manpower Development* views waste as an occupational health risk. The NEP requests that the Ministry develops and implements legislation with regard to waste disposal.
- The *Ministry of Commerce, Industry and Tourism* is responsible for initiating research work for the development of guidelines for the collection, storage and transportation of waste, as well as the development of standards for labels that identify the type of waste product being transported.
- The *Ministry of Foreign Affairs* is responsible for liaising with foreign donors who may be interested in assisting with the provision of adequate waste and sanitation facilities.
- The *Ministry of Local Government* is responsible for all local authorities that are responsible for providing sanitation services in urban areas. It assists and provides advisory services such as on low cost sanitation programmes and projects for example.
- The *Ministry of Women, Youth and Community Services* provides education and training on waste management at household level.
- The *Ministry of Agriculture and Irrigation* is involved in promotion and delivery of low cost sanitation through integrated rural development projects within the Agriculture Development Division. The utilisation of organic products from the biological treatment of waste also falls within this area.
- The *Department of District Administration* provides public sanitary facilities at public places, such as markets.
- The *Malawi Bureau of Standards* (MBS) has the leading role in the preparation of standards. MBS is currently drafting standards for waste water. Other relevant waste standards are planned.

- The *Malawi Industrial Research and Technology Development Centre* is involved in research work related to waste management and is a useful source of information in the development process for waste facilities.
- With the privatisation of public facilities the role of the *private sector* in waste management is on the increase. Typically, the private sector is represented by the Chamber of Commerce and is considered to be a key stakeholder as its members generate the bulk of the waste.
- Some *non-governmental organisations* (NGOs), for example, Plan International Malawi, are implementing waste management projects and are a good source of information for the developer.
- *Community-based organisations* (CBOs) also play an important role in the development and implementation of waste facilities. In the interest of the developer, CBOs should be involved in project development and implementation. This will help to avoid delays or possible termination of the project because the project is politically not feasible.

**APPENDIX 6: REMINDER LETTER ON REQUEST FOR WRITTEN COMMENTS  
FROM THE CITY COUNCILS**

Telephone: + 265 1 770 700  
Facsimile: +265 1 773 071  
+265 1 776 125  
+265 1 774 138

All Communications should be addressed to:  
National Audit Office



In reply please quote No. ....

NATIONAL AUDIT OFFICE  
P.O. BOX 30045  
CAPITAL CITY  
LILONGWE 3  
MALAWI

**AUDITOR GENERAL**

Ref. No. NAO/38/36/1

5<sup>th</sup> September, 2014

The Secretary for Local Government and Rural Development  
P.O. Box 30312  
LILONGWE 3.

Dear Madam,


**DRAFT PERFORMANCE AUDIT REPORT ON WASTE MANAGEMENT**

Please refer to an audit exit briefing held between National Audit Office, Chief Executive Officers and Heads of Councils, Ministry of Local Government and Rural Development Management at your Ministry Headquarters on 24<sup>th</sup> February 2014, chaired by PS2.

I write to advise that I have not yet received the management comments from the councils except Blantyre City Council and this letter serves to remind all Chief Executives and Heads of Councils to send their comments by 19<sup>th</sup> September 2014. I shall be compelled to issue the report without management comments from the rest of the councils should they not send them by the stated date.

I appreciate the collaboration that exists between National Audit Office, your Ministry and National Local Government Finance Committee towards accountability and transparency of public resources.

Yours faithfully,

  
S.D.L. Kamphasa



Cc : The Executive Secretary  
National Local Government Finance Committee (NLGFC)  
P.O. Box 31162  
**LILONGWE 3.**

Cc : The Chief Executive Officer  
Lilongwe City Council  
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**LILONGWE 3**

Cc : The Chief Executive  
Blantyre City Council  
Private Bag 67  
**BLANTYRE**

Cc : The Chief Executive Officer  
Mzuzu City Council  
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**MZUZU**

Cc : The Chief Executive Officer  
Private Bag 43,  
**ZOMBA**