

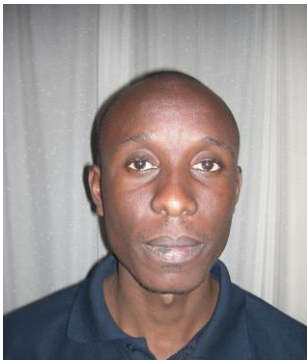
Solid Waste Management for a Clean and Liveable City

Management of Garbage in Urban Centers - A Case of Masaka Municipal Council, Uganda

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1 Urban Sector Review

1.1 Basic General Data

Uganda



Fig 1. Location of Uganda and Masaka Municipality. Source: Goal Africa.

Geography and Administration

Uganda is one of the three East African Countries. It borders Sudan in North, Kenya in East, TZ in Southern, Democratic Republic of Congo in West and Rwanda in South West.

It has a geographical area of 241, 500 km², of which 194,000km² is only land and wetland.

In 1980, Uganda's population was 4.762 million, 3.1% of whom lived in urban areas. In 2002, the population was 24.7 million, with 12.3% living in urban areas (UBOS, 2002) and 54% of these live in central region. Uganda's population is projected to be 76.9 millions in 2035, 30% of which will be in urban areas. Rural Urban migration and natural population increase are among the major drivers of urbanisation in the world.

Urbanization can be defined as a process in which an increasing proportion of an entire population shifts to live in urban areas characterized with predominantly none agricultural activities (UNHS 2005)¹.

The country is divided into 80 districts with a decentralized system of governance. According to the Local Government structure, there are different levels of Local Governments and these include; Districts as the highest local Government units and below which are Municipal Councils and then Town Councils/ sub-counties.

In Uganda, urban areas are only those gazetted as cities², municipalities³, Town Council⁴ and of recently, Town Boards and the categorization is based on indicators mostly the population size.

Between 1959 and 1969, urban growth rates were 8.2%, 3.9 during 1969-1980, 5.8% during 1980-1991, 4.6% between 1991 and 2002 and 5.6 by 2007 indicating an over all increase.

At a national level, in the year 2005, the Government established a Ministry responsible for urban management and development whose role is policy

¹ Every after two years, the Government carries out a national house hold survey (UNHS)

² Indicators like population sizes, where a city must possess at least one million people or more

³ Municipal Council at 100,000 people or more

⁴ A Town Council at 250,000 people or more but if an area is an administrative seat of a District, it automatically qualify.

formulation and guidance on urban issues while working together with the ministry of Local Government.

Table 1: Important economic growth and demographic indicators.

Demography and major Development indicators		
Indicator	Year of study	Status
Total Population	2007	30.9 million
Urban Population	2007	17%
Total Population growth rate	2007	3.5%
Rural growth rate	2000-2005	2.5%
Urban growth rate	2007	5.6%
Fertility rate	2007	6.7%
Infant mortality rate	2007	76 Deaths/1000 live birth
Life expectancy	2007	51 years
Economic growth rate	2007	5.6%
Population below the poverty line	2007	31.0%
% of the poor in urban area	2007	4%
Urban employment in informal sector	2007	40-60%
Human Development		0.505(ranked 145th).

Source: Uganda bureau of statistics reports.2006,2007, Masaka Municipal Development plan 2008-2011.

The economy's G.D.P per capita (ppp us \$) is 1,454, with the urban sector contributing at least 62% despite the low urban population.

Since 1986, Uganda has aimed towards prosperity. Between 2001 and 2006, the country's growth rate in G.D.P varied 1.147% and 6.6% p.a (UBOS, 2006).

By the year 2005/06, the estimated population in the country was 27.2 million, female 51% and majority of which are below 15 years of age. The youth migrate more from villages to towns for employment opportunities. Agriculture is the backbone and this has a bearing on the generation of garbage because of the nature of foods e.g bananas, sweet potatoes.

Literacy rates still low at 69% despite the introduction of Universal Primary Education.

20% of the population at 15 years and above had no formal education (UNHS, 2005/06).

The labour base grows at 3.6%,

9% of house holds can only afford one meal a day.

1.2 Urban facts and figure

Uganda boasts of being one of the Countries with the highest rate of urbanisation in Africa and below is a table indicating related facts.

Table 2: Urban Facts and Figures.

Number of gazetted cities	1
Number of gazetted Municipalities	13
Number of gazetted Town Councils	95
Number of gazetted Town boards	130
Estimated total Urban Population	5,253,000
% of urban people living in slums	71%
Volume of garbage generated per week per urban hold	4kg



Fig. 2 Poor garbage disposal practices in Central Division of Masaka Municipality.

In Uganda, there are 160 small towns with a total population of about 1.693 million, eleven Municipalities and one City, out of which 113 have no capacity to collect garbage generated and no sorting is done. Examples of wastes include sewerage, refuse bio non degrade, able polythen bags, medical wastes (placentas, human body parts, nidoles etc) un claimed bodies of both people and animals, abatour wastes, irregular emptying of septic tanks due to lack of cesspool emptiers. Most of the urban centres in Uganda are littered with uncollected garbage, the streets are most of time un swept and generally the towns are not clean.

The reasons as to why the towns have been covered by uncollected garbage include:

- Decline in revenues and so did the ability to collect garbage.
- Sharp rise in urban population. Masaka's population in 1991 stood at 49,585 people. In 2002 jumped to 67,768 people and now estimated at 80100. This population increase means more garbage. During day time, this population more than doubles and so is the pressure on service Delivery.
- The volume of garbage generated per house hold is the second highest in the central region. And Masaka in particular has the second highest volume of garbage next to the capital city of kampala. The volume of garbage generated is estimated at house hold level is between 4-5 kg per week in Kampala. In Masaka is 150 lorry trips per week.(MDP:2008-2011)⁵

1.3 Policy

There are various national laws that regulate the generation and management of solid wastes though some are out dated.

The legal frame work

The Town and country planning act 1964 provides a policy legal frame work against which physical planning is done on urban settlements. It provides for the creation of Town and country planning board, a body responsible for hand use planning approval and gazzetting structural plans. However this law is out dated

⁵ Every Local Government in Uganda must come up with a three year rolling strategic investment plan, for the case of Masaka it is called the 'Municipal Development Plan'

and in effective to enforce compliance and discipline and this has greatly contributed to irresponsible littering of garbage.

The Local Government Act 1997 defines and describes the various levels governments and sets criteria for gazetting urban areas. The public health act 1974.⁶

The physical planning bill 2008 is the policy behind the need to consolidate the law on physical planning into one law in order to make the whole country a planning area. The bill seeks to repeal the Town and country planning Act, Cap 246 which is out dated. Bill No.15.

The National land use policy whose main thrust is modernization through planned land use, urbanization, industrialization and a developed services sector, Articles 237(7) and 242 of the constitution of Uganda are very clear on the need to make laws and formulate policies on planning and land use. One of the objectives of the policy is “to ensure planned, environmentally friendly, affordable and well-distributed human settlements for both rural and urban areas (The National land use policy, may 2007). By the year 2025, it is estimated that Uganda’s population will be about 54 million, with over 30% living in urban areas. It is therefore important that policies are designed to address potential adverse effects.

1.4 Actors and their Roles

Increasing rural urban migration, urban sprawls, poor housing facilities with their associated inadequate sanitation facilities have put more pressure on urban managers in terms of service provision. The increase in population means generation of more garbage, in addition to demand for other services like security, housing, road maintenance etc.

Masaka Municipal Council has attempted to address these urban issues through multi disciplinary and inter disciplinary approaches. Gender mainstreaming, community involvement and democratization through a decentralized system of governance have been key. The council has championed the design and

⁶ This law provides penalties on irresponsible littering of garbage, but fines are over taken by time.

development of master physical plan involving the views of the stakeholders, though enforcement is lacking.

However, in attempting fulfill on roles, some challenges have been met:-

Failure by the central Government to realize that investing in urban centres means faster economic growth and ultimately greater stability for the country. Forgetting that urban centres are stable engines of economic growth. Forexample, Kampala City, the capital city of Uganda alone produces over 60% of Uganda's industries and 95% of the total industries are located in urban areas. The town is littered with un collected garbage and the volume is increasing with increasing rural urban migration and natural urban population growth. This is made worse with limited financial resources. Other actors include the Civil society organisations and banks through 'social responsibility'⁷

2 Organisation

I work as Deputy Director with Masaka Municipal Council after having graduated with a bachelors degree in social sciences from Makerere University-Kampala, post graduate diplomas in Public administration and management, Urban Governance and Management and I am finalising a Masters degree in management studies. I boost of a seven years experience in Urban management at different levels in addition to international exposure.

Masaka municipal council is one of the thirteen Municipal Councils in Uganda and the one of the highly populated Towns. Historically, Masaka Municipal Council was first declared a township authority in 1953, promoted to a Town council in 1958 and declared a Municipality in 1968.

Location

Masaka municipality is found in the Central Region of Uganda in about 130 km south-west of the capital city- Kampala, along the Trans-African highway to Rwanda and the Democratic Republic of Congo (D.R.C).

⁷ This is the term used by private firms when giving back to their clients. eg repainting Zebra crossings.

Population and human settlement

The population of Masaka municipality was 67,768 persons, of whom 52.6 percent were females by 12th – 13th September 2002 census night. Precisely, the sex ratio was 90 males per 100 females. Below are the population trends.

Table3: Past and Future Population Trends

Year	CENSUS period			Estimated population based on 2002 final results	
	1980	1991	2002	2008	2011
Total Popn		49,585	67,768	77,000	91,486.8
Sex Ratio		91.3	90.1	89.7	89.1
Annual Growth rate	5.0%				
		2.68%			

N.B: (a) Census night 18th Jan, 1991 and 13th Sept, 2002. Source: UBOS/UNHS

2005

Table 4: Other Demographic Indicators

Indicator	Value	Source
Total Fertility Rate	6 children per woman	
Crude Birth Rate	48.5/100 population	
Crude Death Rate	17.9/100 population	
Infant Mortality Rate	116/1000 Live births	
Life Expectancy at birth	Males 43 years; Female 49years; M&F 46 years	
Population density	1,473 persons per Km2	2002 Census
Literacy rate	92%	“
P.S Gross Enrolment Rate	127%	“
P.S Net Enrolment Rate	90.72%	“
Secondary School G.E.N	50.9%	“
General employment Rate	29.8% (i.e. 20,228 persons by 2002 census night)	“
Dependence Rate	52.4%	2002 Census

Adminstration

Administratively, Masaka municipality is divided into three divisions, six wards: two under each division and a total of 54 villages/cells. All this is on a total land area of 56.28 sq. Km.

The Municipality is headed by the mayor as the political head and the Municipal Director as the administrative head and chief implementer of Municipal programs and projects and below him are over 600 employees in different Departments. The organisation is made up of six departments and these include: the department of administration and management services, Finance and planning,

works and Transport, Community Development services, Public health and Education.

As a Sub National/ Local Government, Masaka Municipal council is guided by a vision ‘a well planned, economically and environmentally friendly city with prosperous people’.

To achieve the above, the Municipal council ensures that people adhere to the structural plans, security, provision of infrastructure facilities like roads, clean water, energy, good governance, tax rebates, proper design and development of a structure detailed and building plan approval and public open spaces maintenance, sanitation, keeping law and order, procurement and management of refuse and the tipping sites etc

The Council is currently on the look out for support and capacity building on waste management and control, probably through twinning arrangements.

3 Urban Problem: sustainable management of garbage in Masaka Municipal Council

A clean and sanitary Town attracts investment, minimises disease incidences and provides accountability to the dwellers with regard to the efficient use of revenue from taxes. Masaka Municipal Council in particular is synergistically faced with Poor Garbage Management Phenomina. Most of its Division councils and wards are generally littered with uncollected garbage, streets are not clean and in extreme cases identified with corrosive smell/ or dour. The amount of garbage generated per day is of 60 trips of Tipper Lorries is quite high hence leaving a lot to be desired. The cost of collection is very high and the community has been irresponsible in disposing waste. The Municipal Council manages garbage in three stages i.e at source, transportation and disposal and challenges have been experienced at all stages. This is because about 60% of the garbage generated is barely collected and even what is collected is not sorted which puts ecology to danger. Getting the whole town free of garbage has proved a greater challenge to the municipal leadership despite the efficient use of the meager available resources.



Fig. 3 Self-created disposal site in central division of Masaka, Uganda

This has led to increased incidences of diseases like cough, diarrhoea, Fever etc and hence increasing public expenditure on drugs. The following were identified as the underlying causes to the challenges of garbage management ranging from national, local to household levels which include among others:

- Increasing rural urban migration leading to high population hence more garbage generation;
- Uncontrolled and improperly planned urban sprawl and human settlements as well as land related developments;
- A conceptually deficient land management paradigm, largely based on ownership; most of garbage disposal sites are on privately owned land resulting into conflict of interest between the urban leadership and land owners, and subsequent improper garbage management at the site;
- Poor policy and legal enforcement mechanisms;
- Inadequate and improper management of garbage disposal sites;
- Poor and inadequate garbage facilities such as trucks, garbage skips, incinerators, mortuaries, septic tanks, soak pits, and drainage channels;
- Poor housing facilities;
- Reluctances to behavioral change; failure of households to use garbage bins;
- Poor garbage sorting mechanisms.

The Municipal Council has tried to address this problem through sensitisation on proper garbage management practices and the potential health risks associated with poor garbage disposal practices but this has not solved the problem. What to be done by this Municipal Authority to address the problem of increasing garbage generation and cost of collection remain a question.

4 Proposal for Change and Improvement

Intensive sensitisation and awareness campaign is a prerequisite for urban solid waste management.

Local Authorities need to appreciate that lack of awareness on the potential benefits associated with proper waste disposal is partly responsible for the apparent problem of poor solid waste management practices. Waste is a resource which can be used to generate thermal power, recycle into paper and bottles, create employment opportunities and environmental protection. Leaders and residents need information on how to exploit the benefits through many ways, for example,

- promotion of rural urban interaction where farmers and the urban leaders meet and discuss mechanisms on ways and means of using waste generated in urban areas as organic manure in plantations.
- Conducting community dialogues

Urban authorities need to embrace waste recycling as a best practice.

The cost of recycling waste is quite high and needs huge capital investment and experience shows that this best practice has not been fully embraced by most of the African Countries as it is perceived not be cost effective. Urban managers therefore need to focus on important indirect benefits associated with waste recycling like

- Environmental: Non organic wastes like polythelene bags affect the ecology, soil fertility and choke the environment. Through proper sorting these can be separated from organic waste and recycled to protect the environment. Burning of non organic waste only pollutes the environment and causes bad odour.

- Social: Clean and beautiful Cities attract investors and tourists.

Urban authorities need to embrace the concept of twinning among Cities

This is the method whereby different local authorities meet and agree to cooperate on establishing contact on areas of common interest. Knowledge is power, and twinning can help urban authorities to share success stories and out source funding for capital investment to start on recycling waste. It can involve exchange visits and information sharing through the Web.

5 Personal Action Plan

Table 5: Time table of activities for the year 2009

Task ref. no	Task name												
		1	2	3	4	5	6	7	8	9	10	11	12
1	Present proposal to Technical committee	█											
2	Approval by full Council		█	█									
3	Disseminate the report to stake holders			█	█								
4	Capacity development initiatives start			█	█	█	█	█	█	█	█	█	█
5	Design bye laws and guidelines					█	█	█	█	█			
6	Waste management committees										█	█	█
7	Identify famers											█	█

Table 6: The five year action plan 2009-2013

Ref. NO.	ACTIVITY	PERIOD OF IMPLEMENTATION IN YEARS				
		2009	2010	2011	/2012	20013
01	Presentation of the proposal for change to relevant committees of Council for review.					
02	Dissemination of the final concept widely.					
03	Capacity Development initiatives					
04	Seek Approval by Council					
05	Seek facilitation for demonstration project sites					
06	Identify and train a critical mass of people to spear head the initiative					
07	Bye laws to enforce compliance					
08	Design and develop guidelines for effective implementation					
09	Formation of Waste Management Committees					
10	Establishment of a Waste Management Fund					
11	Develop and support net works with farmers					
12	Seek for Twinning and City to City cooperation					
13	Source for Funding to invest in waste recycling.					
14	Allow M & E					

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