

# Challenges of Privatizing Waste Management in the in Wa Municipality Of Ghana: A Case of Zoomlion Ghana Limited

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## ABSTRACT

In the past, management of waste in the Wa municipality in particular and Ghana in general was the sole responsibility of District, Municipal and Metropolitan Assemblies. As a result of inefficiency in management of waste by District, Municipal, and Metropolitan Assemblies, a private company known as zoomlion Ghana Limited was contracted to shoulder waste management in the entire country. This paper sought to examine challenges in privatizing waste management in the Wa municipality of Ghana. Documented evidence reveals that the Integrated Solid Waste Management model has become the most preferred model for managing solid waste in urban centers of developing countries, it has not been adopted in the management of waste in the Wa municipality by Zoomlion Ghana Limited due to financial and logistical constraints. Also Zoomlion Ghana Limited lacks the technical know how to effectively manage the waste generated. It is recommended that there is the need for an introduction of incentive schemes such as subsidies, concessional loans and tax incentives to encourage investment in acquisition of equipment, research, training and project demonstration by the private sector.

**Keywords:** Challenges, Privatizing, Waste, Management

## 1.0 INTRODUCTION

On the issue of proper management of solid waste, Shan (1989) recommends for privatization and award of contracts in other to ensure proper waste management services, managerial competence and efficiency. The involvement of private companies in carrying out waste management services is not farfetched. One prominent private waste management expert company is the Zoomlion Ghana Limited. The company was founded in 1992 as Changsha Hi-tech Development Area, a Chinese manufacturer of construction machinery and sanitation equipment which later became Zoomlion Construction Mechanical Industry (Cointreau, 2006).

The role played by this reputable company as waste experts over the years around the globe cannot be underscored. Among some of the services rendered by the company ranges from solid waste collection and landfill management, landscaping to beautification services. Other services include janitorial and indoor cleaning services as well as fabrication and sale of refuse containers. The company has also ventured into other sectors such as agriculture, sales and rental of construction and waste management equipment as well as oil waste management services (Joseph, 2011).

In pursuance of excellence in proper waste management and Sanitation, Zoomlion is currently collaborating with international waste management companies in South Africa and Germany for technical cooperation and capacity building. Also, China is partnered for modern equipment as well as Denmark for research into biogas systems (Booth, 2012).

In line with this, the Ghana government in 2006 contracted the services of Zoomlion Ghana Limited to augment

the efforts of the metropolitan, municipal and district assemblies across the country to ensure quality and proper collection and disposal of waste and general environmental cleanliness. The need to invite a private company was prompted by the fact that Municipal Assemblies have not been able to manage the waste generated efficiently over the years due to obvious reasons (Mensah, 2010).

This company was contracted to operate throughout the country with assistance from the assemblies in the form of providing them with project staff through the recruits of National Youth Employment Program (NYEP). The aim of government was to include efforts from all sectors such as the public-private partnership agreement to enhance proper disposal of waste generated across the regions in the country (Government of Ghana, 1999).

A lot has been done by authorities on the causes and effects of poor environmental sanitation, as well as the inefficiency in waste management by the Government of Ghana, through district, municipal, and metropolitan assemblies, to the neglect of challenges of privatizing waste management. This article aims at filling a research gap on the challenges of privatizing waste management. It also aims at providing baseline data for donors and interested parties.

## **2.0 MATERIALS AND METHODS**

### **2.1 The Study Area**

Wa Municipal lies within latitude  $1^{\circ}40' N$  and  $2^{\circ}45' N$  and longitude  $9^{\circ}32' W$  to  $10^{\circ}20' W$ , thus covering an area of approximately 23,474 square kilometers which is about 32% and 2.56% of the total land area of the region and the country respectively. The Wa Municipal shares administrative boundaries with; the Nadowli District to the North, the Wa East District to the east and South, and Wa West district to the West and South (Wa Municipal Assembly-Medium Term Development Plan (2010-2012)-Unpublished).

#### **2.1.1 Maps of Study Area**

Figure 1, 2, and 3 are maps of the study area

### **2.2 Methods**

Apart from the use of documented sources, the study also generated first hand information from the field. Purposive and simple random sampling techniques were also utilized in the study to select interviewees. The study relied on qualitative and quantitative approaches, taken in to consideration, sources of data, sampling techniques, data collection techniques, as well as data analysis and presentation techniques. The study area, Wa municipal was purposively chosen by virtue of the fact that it is the regional capital of Upper West region of Ghana and hence the head quarters of private company under study in the Upper West Region is situated in Wa Municipal. Qualitative tools such as interviews, observation, key informant interviews as well as focus group discussions were used for data collection. Quantitative tools, namely SPSS and Excel as software for data analysis as well as tables and charts were used for data presentation alongside descriptive analysis.

#### **2.2.1 Sampling Procedure.**

The core staff of Zoomlion were selected using the purposive sampling technique to obtain an outcome of two (2), as they are knowledgeable on the subject matter.

Also, stratified random sampling technique was used to choose Four (4) laborers to ensure representativeness among the direct laborers (sweepers) due to their divergent roles and challenges accruing from discharging their roles.

The only institution collaborating with Zoomlion Ghana Limited is the Wa municipal Assembly, as such two (2) respondents were selected through simple random sampling technique. Also, simple random sampling technique was used to select eighty-two (82) households of which a questionnaire was administered to a respondent in each household. In totality, 90 respondents were interviewed.

## **3.0 RESULTS AND DISCUSSION**

### **3.1 Types of Waste in the Households.**

The study reveals that waste generated in the Wa Municipality ranges from plastic, paper to liquid. Table 1 illustrates the types of waste generated in the Wa Municipality.

Table 1 indicates the types of waste mostly generated by the individual households according to the survey conducted among the 90 respondents. The indication is that, plastic wastes is mostly generated in the households with 56.7%, responses followed by liquid with 27.% of responses, the responses for paper is 8.9% and others

which include organic materials, leather were advocated for by 6.6% of the respondents.

The implication is that, plastic waste such as polythene bags which cannot easily be decomposed must be properly disposed of and the gutters and soak aways in the households must be regularly drained to prevent the breeding of mosquitoes and spread of communicable diseases.

### **3.2 Waste Storage Facilities**

Table 2 depicts the types of waste storage facilities in the Wa Municipality. It is very clear from table 2 that majority of the interviewees do not have any formal arrangement in terms of facilities for storing their waste. Also, a good number of the interviewees store their refuse in close containers. This could also mean that, those without formal arrangement in terms of facilities for storing waste could end-up disposing their refuse at unauthorized dumping sites

From table 2, waste storage facilities available in various households as revealed by the survey indicate that, out of the 90 respondents interviewed, 19 stored their waste in open containers, 28 in closed containers, 33 of them have no formal arrangement in terms of facilities for storing waste and 10 represents others.

It therefore means that, majority of the people indiscriminately disposed of their waste into gutters or in illegal dump sites as shown in table 2.

### **3.3 Waste Management Agencies**

Table 3 depicts agencies responsible for waste management in the Wa municipality. It is very clear from table 3 that majority of the interviewees are of the opinion that Zoomlion Ghana Limited is the agency responsible for waste management in the Wa municipality. However, some respondents still hold the view that waste management in the municipality is the responsibility of the Wa Municipal Assembly (WMA). This means that, some people are not aware that the Wa Municipal Assembly has contracted Zoomlion Ghana Limited to shoulder waste management in the Municipality.

Table 3 outlines the agencies responsible for waste management in the wa municipality. According to the study and analysis of the data collected, most of the people interviewed (74.4%) revealed that, Zoomlion Ghana Limited is responsible for waste management in the municipality, followed by the Wa Municipal Assembly (WMA) with 23.3% and others such as community volunteers and unit committee members taking the remaining 2%. The implication of the above analysis is that, once the people realize that an institution is responsible for the collection and disposal of waste, households and the general public would pay less attention in managing their own waste.

The municipal coordinating director Mr. Rufiayi in an interview disclosed that, Zoomlion Ghana is in charge of 80% of the waste management and the remaining 20% is for the municipal assembly.

### **3.4 Perception of the Public on Waste Management Services**

Table 4, illustrates the perception of the general public on waste management services by Zoomlion Ghana Limited

The various respondents shared their perception about the services provided by the waste management company. From all indications majority of the respondents concluded that, the sanitation situation in the municipal still leaves much to desired as manifested by the table that, 47.8% are in support of poor sanitation, 22.2% mentioned fair, 13.3% advocated for very good and lastly 16.7% were in support of good.

It means that natives and residents of the Wa municipality still need a lot of sensitization programs on waste management practices based on the logic that waste management activities are shared responsibility of all.

### **3.5 Logistics and Personnel of Zoomlion Ghana Limited**

Table 5 presents on logistics and personnel of Zoomlion Ghana Limited taken into consideration quantities available, operational and required.

An interview held with the regional environmental supervisor of Zoomlion Ghana limited, Mr. Edmond K Vidjah indicate that, some of the logistics and current personnel of the company are woefully inadequate. He also mentioned that, efforts have been made so far to ensure environmental cleanliness in the municipality but efforts are still in vain. This is due to the fact that the private company in question is confronted with series of challenges and difficulties including logistics, unqualified personnel and financial constraints. He said the main source of the company's revenue is government subsidy on sanitation. He concludes by stating that, the company is not resourceful enough to purchase sophisticated equipment. Moreover the personnel are highly unskilled to

operate with the limited equipment as indicated in table 5.

### **3.6 Hierarchy of Employees in the Supervision Process.**

Figure 4 illustrates the hierarchy of Employees in Supervision.

Figure 4 shows the hierarchy of supervision of the employees of Zoomlion Ghana Limited. According to the environmental sanitation supervisor, Mr. Edmond K. Vidjah, the Municipal assembly plays the overall supervisory role of all the activities of the company. Besides that, the company within its own jurisdiction, in ensuring the regularity of employees' performance introduced "the team-leader system". The system ensures that, every group is composed of ten project staff with a leader who ensures that, attendance of the cleaners are taken before and after work to ensure that they carry out their duties regularly.

On regularity of employees to work and how frequent the containers are emptied, draining of the gutters and sweeping of the principal streets, the municipal supervisor of the company Mr. Mohammed Abdullai mentioned that, the employees are guided by working regulations. He added that the frequency of emptying the commercial and skip containers is dependent on the location and the rate at which the resident generate waste. In Fadama and Kejetia markets which are within the central business district of the municipality for instance, commercial and skip containers are emptied on daily basis.

The manager also underscored some of the reasons why the company is still struggling to ensure proper waste management practices in the municipality, these are; wrong perception of the public on sanitation issues, inability of the households to dispose of their refuse at the designated points. The rest are lack of public education on the dangers of waste accumulation, illiteracy and non enforcement of sanitation bye-laws. These have contributed to the deplorable nature of the sanitation situation.

A direct observation from field visits revealed that most of the skip containers according to the residents are emptied once in a month and sometimes not at all and the worse of it is that some residents set fire on the commercial containers, least you talk about the dangers involved in this, the better. On the principal streets it was observed that the gutters are choked and not properly drained and to add to that, one tricycle rider revealed that, they are told to park the bikes anywhere convenient to them.

The only dumpsite which is 25km away from the municipality, is not engineered and not monitored properly as trucks just dump the waste anywhere near the site and residents closed to the site are exposed to all kinds of health problems. These among others indicate that the waste situation in the municipal is nothing to write home about if strict measures are not put in place. Also, if nothing is done about the situation, then, Zoomlion Ghana limited cannot achieve its aim of zero waste in Ghana by 2015.

## **4.0 SUMMARY OF FINDINGS**

The study was carried out to find out the possible causes and effects of the deplorable state of the waste management situation in the Wa Municipality since the inception of Zoomlion Ghana limited so as to come out with a suggested remedy. This was done in a cross sectional study involving 90 respondents sampled from the municipality. The research revealed that 50% of the people interviewed were illiterates. This therefore indicates the bad sanitation situation of the municipal since most of them did not know the health implication of waste accumulation at households.

In another development the study also revealed the nature of households in generating and storing their waste. A percentage of 36.7 indicated that, they have no arrangement for the storage of their waste and it therefore suggested that they disposed of their waste indiscriminately and that has always led to environmental health related diseases such as malaria and cholera.

The data analysis also showed that, out of 90 households 51 of them generate plastic waste which is hard to decompose and it is therefore not surprising that, the town is always littered with polythene bags. One obvious thing the study also revealed is the deplorable sanitation state of the town. As revealed by the responses, 44 of the 90 described the situation to be poor representing 47.6% and this has confirmed the public perception of waste situation in the town.

On the adequacy of logistics of the company in the effective and efficient execution of its roles on waste management, it is clear from the study that the company is faced with logistical constraint. This is shown in table 5. It is indicated that the company requires 720 commercial containers in and around the municipality as well as 10 skip loaders and 28 skip containers. The personnel are highly unskillful and require regular in-service training

to increase their awareness on waste management practices and techniques.

The study also unveiled weak supervision on the part of officials of the Wa municipal assembly on the activities of Zoomlion Ghana Limited. It is also clear from the study that, in ensuring regularity of employees of the company at work, the company has institutionalized a monitoring system being spearheaded by team-leaders. The monitoring system operates based on the logic of hierarchy of supervision as outlined in Figure 5.

The municipal assembly in its bid to assist the company in proper waste management, has revamped the sanitary inspectorate unit by relying on the employees of the National Youth Employment Program to embark on a house to house services to apprehend residents who do not keep their surroundings clean. This in essence also goes to improve the sanitation situation in the wa municipality

## **5.0 CONCLUSIONS.**

In a nutshell, indiscriminate disposal of waste in both the household and the public is not only harmful to those who do it but the trickle -down effect extends to the entire residents in the town. However the improper disposal of waste in the municipality is alarming and this is as a result of the following:

1. Ignorance of the public about the dangers of waste accumulation in the households and immediate surroundings.
2. Lack of enforcement of sanitation bye-laws in the entire municipality.
3. The wrong notion of the masses that Zoomlion Ghana limited is solely responsible for waste collection and disposal in the municipality
4. Inadequate logistics on the part of Zoomlion Ghana Limited, especially communal containers and skip trucks.

## **6.0 RECOMMENDATIONS.**

In order to ameliorate the situation of inadequate logistics and personnel , the following recommendations are put forward for policy consideration:

- It is recommended that the waste management company, Zoomlion Ghana Limited (ZGL) adopts the Integrated Solid Waste Management Model (ISWM) as the panacea for ensuring sustainable waste management in Ghana and for that matter the Wa municipality in trying to solve the waste management problem. It is important that resources for running the waste management program are properly harnessed. Financial resources, legal institutional framework and human resources are the fundamental components on which the Integrated waste management model can effectively operate.
- There is the need for improved legal and regulatory instruments coupled with strict contract enforcement and monitoring by the government of Ghana to help achieve the desired results through the setting up of sanitation courts within our communities.
- The is need for an introduction of incentive schemes such as subsidies, concessional loans and tax incentives by the Wa Municipal Assembly to encourage investment in equipment replacement, research, training, and demonstration projects by the private sector.
- Waste should be regarded as a great economic resource. The segregation, reuse and recycling of waste at the household levels or points of generation should be supported and funded by the government of Ghana.
- Reform to land acquisition, urban planning with regard to waste management should be taken seriously by the Lands Commission and the Town and Country Planning.

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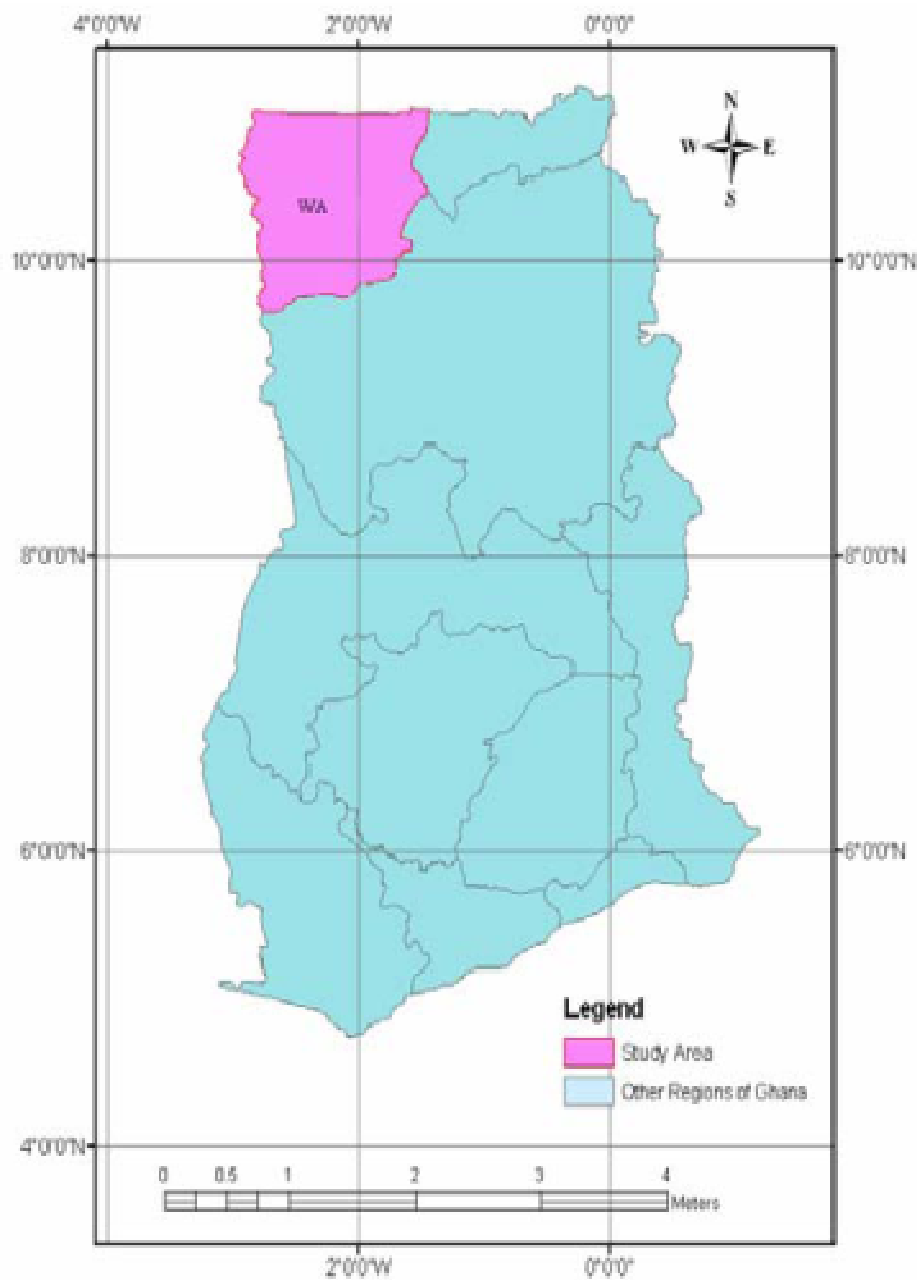


Figure 1 Map of Ghana Indicating Wa Municipal

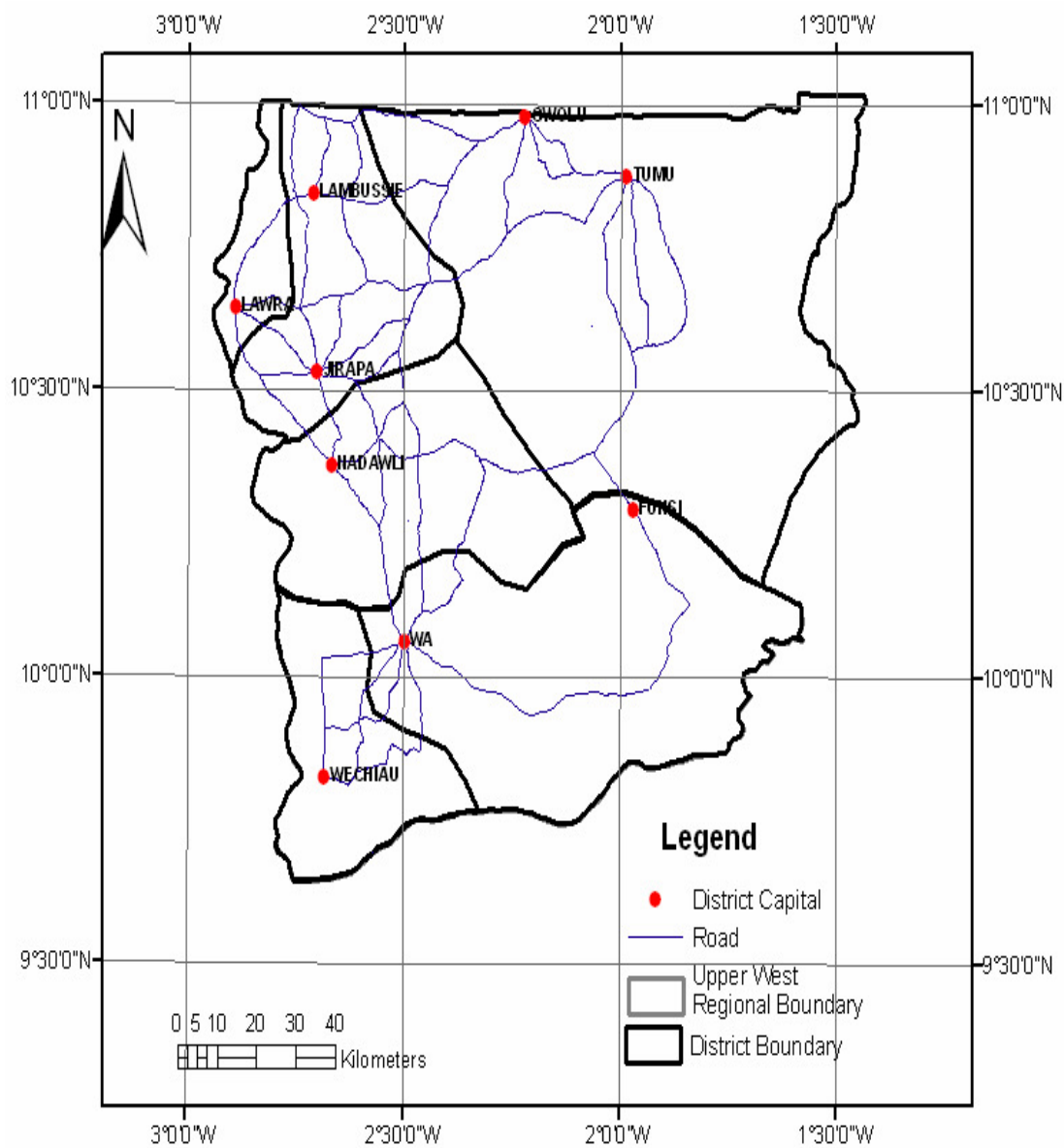
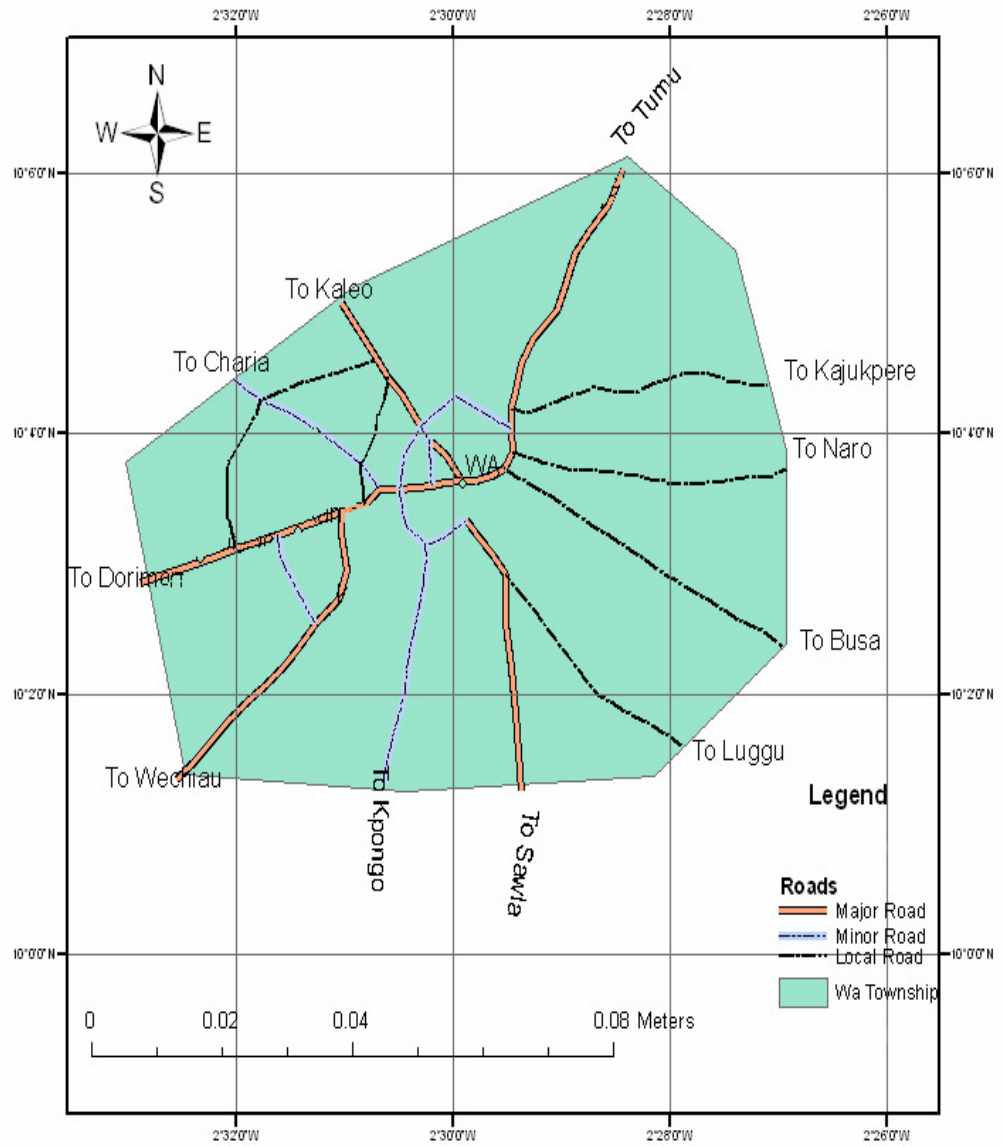


Figure 2:

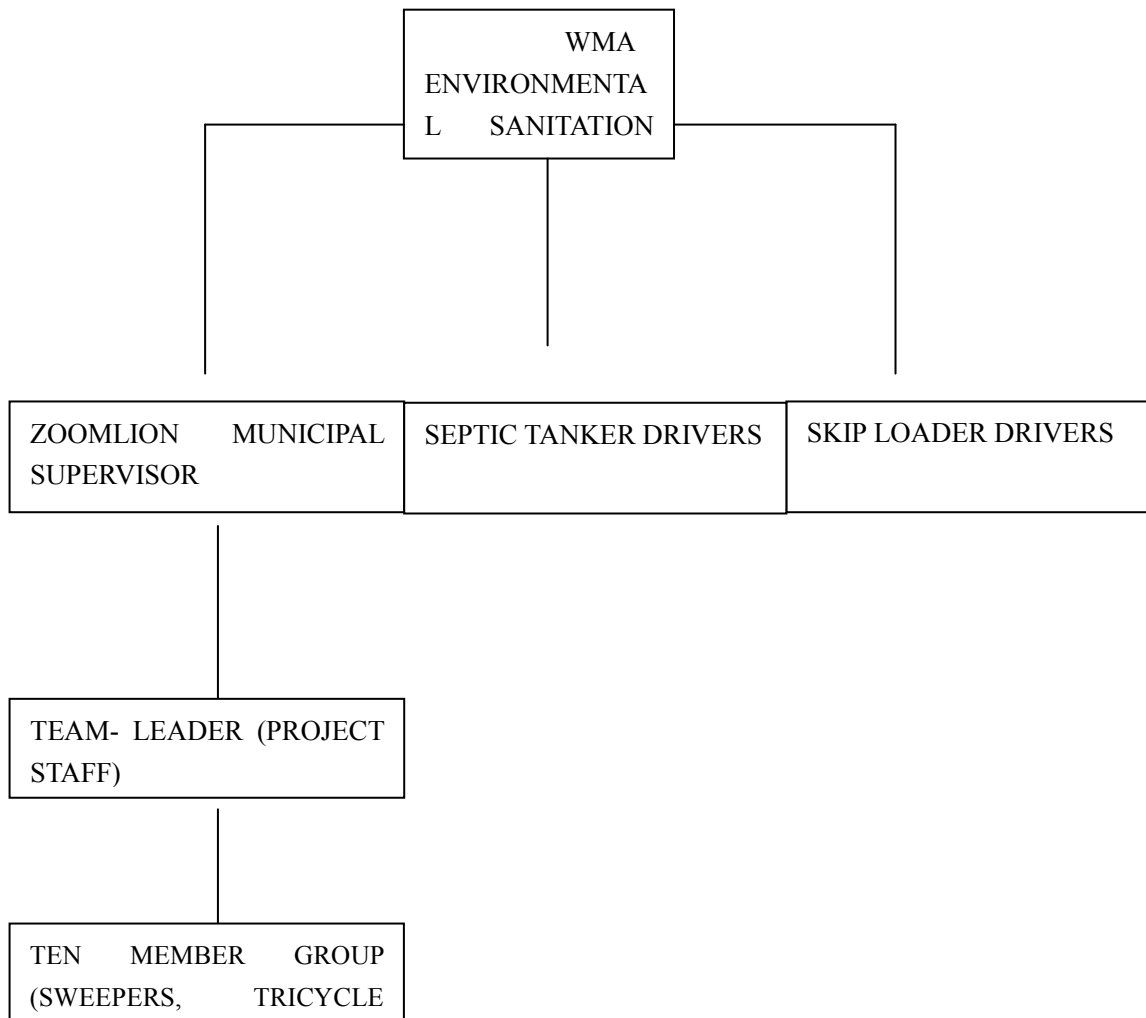
Map of Upper West Region Indicating Wa Municipal



Figure 3: Map Ofwa Township Indicating the Physical Layout Of The Township



**Figure 4 Hierarchy of Employees in the Supervision Process**



Source Field Survey, June 2012

**Table 1 Types of Waste Generated in Households**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PLASTIC	51	56.7	56.7	56.7
	PAPER	8	8.9	8.9	65.6
	LIQUID	25	27.8	27.8	93.4
	OTHERS	6	6.6	6.6	100.0
	Total	90	100.0	100.0	100.0

Source field survey June, 2012

**Table 2: Types of Waste Storage Facilities**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	OPEN CONTAINER	19	21.1	21.1	21.1
	CLOSE CONTAINER	28	31.1	31.1	52.2
	NO ARRANGEMENT	33	36.7	36.7	88.9
	OTHERS	10	11.1	11.1	100.0
	Total	90	100.0	100.0	100.0

Source: field survey June, 2012

**Table 3 : Waste Managent Agencies in the Wa Municipal**

	Frequency	Percent	Valid Percent	CumulativePercent
Valid ZOOMLION	67	74.4	74.4	74.4
WMA	21	23.3	23.3	97.7
OTHERS	2	2.3	2.3	100.0
Total	90	100	100	100

Source: field survey June 2012

**TABLE 4: Respondents Perception of the Waste Services provided by Zoomlion Ghana Limited**

Perception	Frequency	Percent	Valid Percent	CumulativePercent
EXCELLENT	-	-	-	0
VERY GOOD	12	13.3	13,3	13.3
GOOD	15	16.7	16,7	30
FAIR	20	22.2	22.2	52.2
POOR	44	47.8	47.8	100.0
Total	90	100.0	100.0	100

Source field survey June 2012

**Table 5: Logistics and Personnel of Zoomlion Ghana Limited in Wa Municipality**

Logistics/Equipment	Number Available	Number Operational	Number Required
Skip Loaders (Roll on/off truck)	7	7	10
Commercial Containers	541	541	720
Skip Containers	28	28	38
Project Staff (Cleaners)	509	509	Not Required
Core staff (Management)	20	20	Not Required
Tricycle	70	70	115
Water Tanker Truck	1	1	5
Others: eg wheel barrows, forks, rakes, and shovels	20	20	Not Required

Source: Field Survey, June 2012

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