

**ADDRESSING POOR SANITATION IN THE LA
COMMUNITY OF THE
LA DADE-KOTOPON MUNICIPALITY
THROUGH COMMUNICATION**

BY

**MANASSEH TETTEH ANDERSON
(10343509)**

**THIS DISSERTATION IS SUBMITTED TO THE UNIVERSITY
OF GHANA, LEGON, IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE AWARD OF
THE MASTER OF ARTS DEGREE IN
DEVELOPMENT STUDIES**

JULY, 2019.

DEDICATION

I dedicate this work to the Almighty God and my family for their immense contribution, sacrifice and prayers in seeing to it that, this work becomes a reality and a success.

ACKNOWLEDGMENTS

My greatest and profound gratitude goes to the Almighty God for granting me the enablement, grace and favour to carry out this study successfully and in a grand style. May His name be praised.

I cannot allude to the success of this study without acknowledging and appreciating the services and efforts of my supervisor; Dr. Aba Obruchah Crentsil who contributed greatly towards the success of the study.

My appreciation will never be complete without acknowledging these wonderful personalities and scholars who contributed in diverse ways to the success of this work. They include Prof. Felix A. Asante, Prof. Peter Quartey, Prof. William Steel, Dr. Simon Bawakyillenuo, Dr. Stephen Afranie, Dr. Nana Akua Anyidoho and Dr. Cynthia Addoquaye Tagoe. My profound gratitude goes to my family and colleagues for their inspirations and support throughout my educational endeavors with particular reference to this study.

To all my colleagues and friends of ISSER 2017/2018, I am very happy to have been part of this great family, God's favour, blessings and grace to you all.

ACRONYMS AND ABBREVIATIONS

AMA	Accra Metropolitan Assembly
CBO	Community Based Organisation
GSS	Ghana Statistical Services
ISSER	Institute of Statistical, Social and Economic Research
LaDMA	La Dade-Kotopon Municipal Assembly
LATENU	La, Teshie and Nungua
MDGs	Millennium Development Goals
NGOs	Non-Governmental Organisations
SDGs	Sustainable Development Goals
UNDP	United Nations Development Programme
UNICEF	The United Nations International Children's Emergency Fund
WHO	World Health Organisation

LIST OF TABLES

Table 2.1: Institutions Responsible for Curbing Sanitation Crisis in Ghana.....	23
Table 4.1: Demographics of Respondents.....	39
Table 4.2: Cross-tabulation on Inhabitant’s Assertion About the Major Communication Tools and Strategies Used in Addressing the Sanitation Crisis in the La Community.....	44
Table 4.3: The Most Effective Communication Tools/Strategies used by Zoomlion in Addressing the Sanitation Crisis in the La Community	60
Table 4.4: The Influence/Effectiveness of Communication Tools/Strategies used by Zoomlion in Addressing the Sanitation Crisis in the La Community.....	62
Table 4.5: Challenges confronting Zoomlion and Government in Addressing the Sanitation Crisis in the La Community.....	71

LIST OF FIGURES

Figure 2.1: A Conceptual Framework for Analysing the Effectiveness of Communication

Tools.....28

Figure 4.1: A Simple Bar Chart Showing Inhabitants' Awareness of the Communication Tools

Employed by Zoomlion in Addressing the Sanitation Crisis in the La
Community.....42

LIST OF PLATES

Plate 1.1: Field Images of the Pattern of Sanitation Conditions in the La Community.....9

Plate 4.1: Field Images on a Seminar Organised by Zoomlion and LaDMA on Sanitation at
Kakramadu in the La Community.....55

Plate 4.2: Researcher in an Interview Session with a Presenter at LATENU Radio Station.....56

TABLE OF CONTENTS

DECLARATION	i
DEDICATION	ii
ACKNOWLEDGMENTS	iii
ACRONYMS AND ABBREVIATIONS	iv
LIST OF TABLES	v
LIST OF FIGURES	vi
LIST OF PLATES	vii
ABSTRACT.....	xii
CHAPTER ONE	1
INTRODUCTION	1
1.0 Introduction.....	1
1.1 Background to Study.....	1
1.2 Problem Statement	6
1.3 Research Objectives.....	10
1.4 Research Questions	10
1.5 Significance of Study	11
1.6 Scope of study/Research Context	12
1.7 Organisation of Study	12
CHAPTER TWO	13
LITERATURE REVIEW & THEORETICAL FRAMEWORK.....	13
2.1 Introduction.....	13
2.2 Global Statistics on Sanitation and Improved Sanitation.....	13
2.2.1 Concept of Sanitation.....	14
2.2.2 Concept of Improved Sanitation	17
2.3 Strategies for Promoting Improved Sanitation.....	18
2.4 Communication.....	18
2.4.1 Direct Communication.....	19
2.4.2 Indirect Communication	20
2.5 Communication as a Tool for Addressing Sanitation Crisis.....	20

2.6 The Institutions Responsible for Promoting Improved Sanitation in Ghana, including the La Community of LaDMA.....	22
2.7 Theoretical Framework (Strategic Sanitation Communication Theory).....	24
2.8 Conceptual Framework for Addressing the Sanitation Crisis in the La community.....	28
2.9 Conclusion	29
CHAPTER THREE	30
RESEARCH METHODS	30
3.1 Introduction.....	30
3.3 Background Information of Zoomlion Ghana Limited.....	31
3.4 Research Design.....	32
3.4.1 Quantitative Research Methods	32
3.4.2 Qualitative Research Methods	33
3.5 Data Collection Methods/Sources of Data.....	33
3.6 Sampling Design/Techniques	34
3.7 Sampling Size	35
3.8 Data Analysis	36
3.8 Limitations of the Research	36
3.9 Conclusion	37
CHAPTER FOUR.....	38
DATA ANALYSIS & INTERPRETATION OF FINDINGS	38
4.1 Introduction.....	38
4.2 Demographics of Respondents.....	38
4.3 Awareness of Communication Tools and Strategies Utilised in Addressing the Sanitation Crisis in the La Community	42
4.3.1 Direct Communication Tools used by Zoomlion in Addressing the Sanitation Crisis in the La Community	45
4.3.1.1 Mails and Emails.....	45
4.3.1.2 Telephone Calls	46
4.3.1.3 Letters	47
4.3.1.4 On-the-Ground House-to-House Publicity	47
4.3.1.5 Zoomlion Refuse Vans with Sirens	48
4.3.1.6 Community Seminars, Durbars and Festival Debate Programmes on Sanitation.....	49

4.3.2 Indirect Communication Tools Used by Zoomlion in Addressing the Sanitation Crisis in the La Community	50
4.3.2.1 Social Media	50
4.3.2.2 Broadcast SMS Text Messages.....	52
4.3.2.3 Television and Radio Broadcasting	52
4.4 Institutional Cooperation among Private Waste Management Agency (Zoomlion), the Government (LaDMA) and Other Relevant Stakeholders in Utilising Communication Tools and Strategies in Addressing the Sanitation Problems in the La Community	53
4.4.1 Cooperation between Zoomlion and the La Dade-Kotopon Municipal Assembly (LaDMA) in Using Communication as a Tool to Address the Sanitation Crisis in the La Community	54
4.4.2 Cooperation between Zoomlion and the Traditional Council in Using Communication as a Tool to Address the Sanitation Crisis in the La Community	55
4.4.3 Cooperation between Zoomlion and the Media in Using Communication as a Tool to Address the Sanitation Crisis in the La Community	56
4.4.4 Cooperation between Zoomlion and other NGOs in Using Communication as a Strategic Tool to Address the Sanitation Crisis in the La community.....	57
4.4.5 Cooperation between Zoomlion and Education and Religious Institutions in Using Communication as a Tool to Address the Sanitation Crisis in the La Community	58
4.4.6 Cooperation between Zoomlion and Health Institution (The La General Hospital) in Using Communication as a Tool to Address the Sanitation Crisis in the La Community	58
4.5 The Most Effective Communication Tools and Strategies Utilised in Stimulating Positive Sanitation Attitudes in the La Community.....	60
4.6 Effectiveness/Influence of Communication Tools and Strategies Utilised in Addressing Sanitation Crisis in the La Community	61
4.6.1 Awareness Creation through Education, Sensitisation and Advocacy	63
4.6.2 Lobbying for Effective Legislation and Policies towards Addressing Sanitation Crisis in the La Community	64
4.6.3 Creating Loyalty through Inter-personal Relations between Workers and Officials of Zoomlion and the Inhabitants of the La Community.....	65
4.6.4 Change of Inhabitants’ Attitudes and Behaviour towards Positive Sanitation Practices and Management.....	67
4.6.5 Assist in Capacity Building towards Addressing the Sanitation Crisis in the La Community	69
4.7 Challenges in Addressing the Sanitation Crisis in the La Community	70
4.7.1 Poverty, Economic Hardship & Financial Constraints	71
4.7.2 Expertise Personnel Constraints.....	72

4.7.3 Poor Collaboration sometimes between Zoomlion and some Relevant Stakeholders Due to Unnecessary Competition and Politics	73
4.7.4 Negative Sanitation Practices and Behaviour	74
4.7.5 Corruption	75
4.8 Conclusion	76
CHAPTER FIVE	77
SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS	77
5.1 Introduction.....	77
5.2 Summary of Major Research Findings	77
5.3 Contribution of the Study to Theory, Policy Making and Practice	80
5.3.1 Contribution to Theory	80
5.3.2 Implications to Research, Practice and Policy	81
5.4 Conclusions.....	81
5.5 Recommendations.....	82
REFERENCES	84
APPENDIX I	88
QUESTIONNAIRE	88
APPENDIX II.....	92
UNSTRUCTURED INTERVIEW GUIDE FOR KEY INFORMANTS	93
APPENDIX III.....	95
KEY INFORMANT INTERVIEWS FOR QUALITATIVE DATA.....	95

ABSTRACT

This study focuses essentially on investigating the extent of institutional cooperation among Zoomlion (waste management agency), the local government and other relevant stakeholders in addressing the sanitation crisis in the La community of LaDMA in Accra Ghana through the use of communication. The study employs the mixed-method research. Secondary data is obtained from journal articles, academic books and newspapers while primary data was collected through questionnaires and unstructured interviews. Major findings from the study reveal that Zoomlion cooperates with the LaDMA and other relevant stakeholders in the La community in utilising communication tools such as social media, television, radio, Zoomlion vans with sirens as strategic methods in addressing the sanitation crisis in the area. These strategies have greatly improved on the waste management situation in the La community as they result in increase in awareness creation, lobbying for effective policies and legislation against poor sanitation conditions, as well as, assisting in capacity building for addressing sanitation crisis in the area. However, there are a number of challenges which confront the various institutions and stakeholders in cooperation to address the sanitation challenges in the La community of LaDMA. These include, financial constraints, expertise personnel constraints, negative sanitation practices and behaviour, among others. The study therefore concludes that Zoomlion as a private waste management agency plays a significant role in cooperation with the Government (precisely LaDMA) and other relevant stakeholders in addressing the dire sanitation crisis in the La community through the use of effective communication tools and strategies. It is therefore recommended that LaDMA should continue to collaborate and cooperate effectively with Zoomlion and all major stakeholders in the La community, to be able to effectively tackle or totally eradicate filth from Ghana, with much emphasis on the La community of LaDMA.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This Chapter serves as a precursor to the entire study. It contains the background to the study, problem statement, objectives and research questions of the study, significance of study, scope of the study and finally, the organization of the study.

1.1 Background to Study

Addressing global sanitation crisis has been of major concern to international organizations (such as the UN, the WHO, World Bank, among others), states, policy makers, environmentalists, NGOs and scholars in recent times. This is because poor sanitation coupled with inaccessibility to safe drinking water has been the major cause of the high infant mortalities across the globe, particularly in developing countries; with Ghana and particular the La community inclusive (Abdullah, 2011). Sanitation can be defined as the hygienic means of promoting health through prevention of human contact with the hazards of wastes as well as the treatment and proper disposal of sewage. The word ‘sanitation’ also refers to the maintenance of hygienic conditions, through services such as garbage collection and wastewater disposal (WHO/UNICEF, 2017).

The World Health Organization states that sanitation generally refers to the provision of facilities and services for the safe disposal of human urine and feces (WHO, 2017). However, the 2017 WHO Report estimates that about 2.1 billion people lack safe drinking water at home, and about 2.3 billion as many lacks safe or improved sanitation (WHO, 2017), particularly in developing countries including Ghana. About 600 million people used a limited sanitation service; that is, improved facilities shared with other households whilst about 892 million people worldwide still

practiced open defecation, particularly in Sub-Saharan African countries including Ghana (WHO, 2017).

The WHO/UNICEF Joint Monitoring Programme Report also estimates show that some 3 in 10 people worldwide, or 2.1 billion, lack access to safe, readily available water at home, and 6 in 10, or 4.5 billion, lack safely managed sanitation, particular in Africa, with Ghana inclusive (WHO/UNICEF, 2017). Inadequate sanitation is a major cause of disease world-wide, particularly in developing countries like Ghana and improving sanitation is known to have a significant beneficial impact on health both in households and across communities.

Consequently, there has been increasing global concerns with regards to how to promote and sustain global sanitation. This was why one of the major objectives of The Millennium Development Goals (MDG's), which was established by the United Nations (UN) to ensure development across the globe by 2015 under the Seventh (7th) Goal, Target Ten (10), of MDGs, was to reduce by half the proportion of people without sustainable access to safe drinking water and basic sanitation; where basic sanitation connotes improved sanitation to ensure Environmental Sustainability, (GHANA's MDGs REPORT, 2015). This objective has subsequently also been captured under Sustainable Development Goals (SDGs), Goal 6 to ensure availability and sustainable management of water and sanitation for all by 2030 (Kumar et al, 2016). Notwithstanding these global efforts aimed at achieving improved and safe global sanitation, poor sanitation or sanitation crisis continues to pertains certain parts of the world, particularly in developing countries like Ghana and for that matter the La community. This was evident in the 2015 Ghana MDGs which postulates that Ghana was not be to achieved the Goal 7 of MDGs to reduce by half the proportion people without basic and improved sanitation by 2015, since sanitation stood at 13% as captured in the Report (Ghana-MDGs Report, 2015).

Poor sanitation in Ghana arises due to poor disposal and management of both solid and non-solid (liquid and gaseous) wastes (Meizah et al, 2015). However, this study focuses essentially on the use of communication tools and strategies by Zoomlion in tackling the crisis of poor solid waste disposal and management in the La community. A study conducted by Meizah et al (2015) reveals that the composition of solid waste in Ghana include high biodegradables (organics and papers) 67%. Food waste formed 79% of this fraction whereas recyclables including plastics, textiles, metals, glass, rubber and leather accounted for 22%, significant enough to sustain a major recycling initiative.

The current strategies for solid waste management employed in Ghana, particularly, Accra and for that matter the La community to ensure improved sanitation include collection, storage, treatment, transport, processing, but these are fraught with dire challenges. Solid waste management in Accra and the La community in particular had focused essentially on collection and transport rather than treatment and disposal. A chunk of the Municipal authorities' budgets allotted for waste management goes into collection and transport alone (Meizah, 2015). Basically, two main methods for collection services used in Accra, and for that matter the La community include the House to House Collection (H/H) and the Central/ Communal Container Collection (CCC) (Meizah et al, 2015).

Collection in Accra including the La community is usually concentrated in the more affluent high-income areas such as Labone at the neglect of the densely-populated inner areas, with majority of the inhabitants such as the main La-Township. Occasionally, other areas arrange to convey their solid waste to the Central/ Communal Container Collection sites. The modes of transport usually include headloads, usually densely populated areas in the community and payment for commercial and private waste vehicles to convey to CCC sites, usually in the

affluent high-income areas. In most of the densely populated areas, poor road networks make it very difficult for either commercial and private waste vehicles to get such areas to convey solid waste to CCC sites.

In more recent times, there has trend towards privatization and decentralization in Accra, with the La community inclusive to help inhabitants cope with the cost for commercial waste vehicles and to improve service delivery. Prior to privatization in 1995, solid waste management in Ghana, particularly in Accra was state managed. However, with privatization there has been appreciable improvement in solid waste disposal and management in the capital, however, more still remains to be done. Consequently, the Government of Ghana and other international bodies such as the World Bank and WHO/UNICEF and some private organizations such as Zoomlion have embarked on series of projects including provision of refuse bins and building of toilets facilities and also implemented policies such as the National Sanitation Day which is observed on the First Saturday of every month to help improve the sanitation conditions in all parts of the country.

In addition to the above, there have been the adoption of about four different approaches to addressing urban sanitation in most parts of Ghana. Some Municipals in attempts to promote improved sanitation take the responsibility and does the collection, disposal and recycling of solid waste. In other instances, the municipal takes responsibility but contracts private individuals in various communities to be doing the collection, disposal and recycling of solid waste in the area. More so, some Municipals do not take the responsibility and people pay Zoomlion themselves to be responsible for the collection, disposal and recycling of solid waste in the area. Furthermore, individuals within some Municipals take the responsibility and does the collection, disposal and recycling of solid waste by themselves.

The use of communication tools has also been adopted in more recent times as a means of addressing the sanitation crisis in Ghana, particular in urban centers. The communication tools employed could be both been direct and indirect. The direct communications strategies include engaging in awareness creation and public education to conscientize people about the developmental threats created by poor sanitation and the need to curtail such threat. This is mostly achieved through education or teachings in schools, campaigns by having personal interactions with inhabitants in an area, distribution of fliers on pamphlets on sanitation crisis, among others. By employing direct communication tools or strategies, the intended audience have personal contacts with the conveyor of the message. The indirect communication tools involve publicity through radio and television programmes, banners, posters, publications in newspapers, social media, SMS text messages and internet websites where the audience do not have personal contact with the conveyor of the message.

Notwithstanding these conscious efforts taken, it appears poor sanitation continues to persist in certain portions of the country, particularly in the capital; Accra with the La community inclusive. This is because, after independence sixty years ago, it is a worrying concern to note that the total sanitation coverage in Ghana has not exceeded 15% for a long time. This means that only 15 in every 100 Ghanaians have access to sanitation facilities and services while the majority are left defenseless against the inevitable challenge of disease. In Accra alone, over 2,200 tonnes of garbage is produced (estimated to fill the entire Accra Sports Stadium) and only 10% of its wastewater treated (Azuliya, 2017).

The above statistic the capital is still bedeviled with sanitation crisis mainly due to the massive influx of rural migrants who move to settle in slums causing an urban population growth rate of 2.27% as witnessed in Accra (World Population Review, 2018). Despite the use of

communication in addressing sanitation challenges in some African countries, it appears poor sanitation still continues to persist in some African countries, particularly in the capital city of Ghana. This calls for the need for this particularly study to investigate the effectiveness of the communication methods and how it has influenced the understanding, perception and behavioural practices of the inhabitants of the La community towards improved sanitation in the area.

1.2 Problem Statement

Like other developing countries, Ghana is faced with several teething developmental challenges that emanate from cultural, social, political and economic sectors of the country. Though political advances in recent democratic successes have often projected the country as a bastion of good governance in Sub-Saharan Africa, the country is beset with some serious socio-cultural and attitudinal difficulties, not least of which is poor city planning and sanitation challenges. Accra, Ghana's capital city and the hub of domestic and international commerce lies in a lowland, making the country prone to flooding anytime there are heavy downpour of rain. This makes the need for proper settlement planning and sanitation all the more imperative for a country seeking to take the commanding height as leader in a modernized Africa.

It worth noting that, relative to the apparent political advances, proper sanitation and cleanliness, in general has been a bane of national development for many years. Ghana is ranked the seventh dirtiest country in the world (Azuliya, 2017). In recent years, the poor state of sanitation conditions in the country has also been brought into sharp focus due to the outbreak of waterborne diseases, particularly cholera, that became widespread following the rainy season in 2017 (Ibid). This led the Accra Metropolitan Assembly (AMA) to issue a health emergency alert

cautioning the general public to take precautionary measures to safeguard themselves against falling victim to the health pandemic (Ibid). Subsequently, the Government of Ghana also issued out a health alert through its Ministries of Health and Education to increase awareness for the drastic effect of poor sanitation in the country and the need to take urgent measures of promoting improved sanitation practices and attitudes among citizens across the country. These efforts are geared towards the attainment of the Sustainable Development Goal of ensuring availability and sustainable management of water and sanitation for all by 2030.

Yet, after sixty-one (61) years of independence, certain portions of the capital city still suffer from inaccessibility to improved water supply and sanitation issues. The persistent sanitation problems in Ghana questions the development priorities of the nation at large. Several studies have examined the urban sanitation challenges in Ghana and its effect on development (Abdulai 2011; Owusu 2010; Osamanu 2010; Box 2010; among others), but little attention has been given to the La community of the La Dade-Kotopon Municipality which currently suffers the highest record of cholera patients in Ghana (Frimpong, 2013). Also, some studies have focused on institutional and governments' efforts in promoting improved sanitation practices among citizens including Lydecker et al 2010; Adubofour et al 2013; Monney et al 2013, among others), however, there is a dearth of scholarly exploring on how communication is utilised as a strategy in addressing sanitation crises, which is the thrust of this study.

According to LaDMA (2013), the sanitation conditions in the La community of LaDMA is deplorable as open defecation is widespread and refuse are often dumped into gutters in the community (See plates 1.1). This sometimes leads to choked gutters, which results in flooding during heavy downpours (Owusu, 2010). Though some attempts have been made by the municipal and private organisations, such as Zoomlion, to address this crisis situation in the La

community, little improvement has been experienced over the years (Azuliya, 2017). This is largely because there has been a challenge of how to effectively utilise communication as a strategic tool for ensuring perceptual and attitudinal changes towards effective behavioural change and sanitation management in the area. It is in this vein that this study would like to examine how Zoomlion uses communication tools as an effective strategy in addressing the sanitation problems in the La community and the effects such communication tools have people's attitudes towards positive sanitation practices.

Plate 1.1 Field Images of the pattern of Sanitation conditions in the La community



A field Image from La Wireless



A field Image from La Trade Fair



A field Image from La Maami



A field Image from La Palm Wine



A field Image from La Apapa



A field Image from La Kakramadu

Source: Fieldwork, 2018.

1.3 Research Objectives

The general objective is to explore how communication tools and strategies are utilised to influence attitudes toward improved sanitation practices and behaviour in the La community.

Specifically, the study seeks:

1. To investigate the direct and indirect communication tools and strategies utilised in addressing the sanitation crisis in the La community.
2. To examine institutional cooperation among private waste management agency the Government and other relevant stakeholders in utilising communication tools and strategies in addressing the sanitation problems in the La community.
3. To assess the effectiveness of communication tools on people's attitudes and behaviour with respect to improved sanitation practices.
4. To examine the challenges in addressing the sanitation crisis in the La community.

1.4 Research Questions

The research questions intended to address the objectives of the study include:

1. What are the direct and indirect communication tools and strategies employed by Zoomlion in addressing the sanitation crisis in the La community?
2. What is the extent of cooperation among private waste management agency (the Government and other relevant stakeholders in utilising communication tools and strategies in addressing the sanitation problems in the La community)?
3. How effective are communication tools on people's attitudes and behaviour with respect to improved sanitation practices among the inhabitants of the La community?
4. What are the challenges in addressing the sanitation crisis in the La community?

1.5 Significance of Study

Notwithstanding the inability of the Ghanaian Government to achieve improved sanitation and hygienic conditions throughout the country, collaborative efforts by the government and some waste management agencies, particularly Zoomlion are helping to address the drastic sanitation crisis which bedevils most parts of the country, particularly the capital city with no exception to the La community. Without this collaborative effort between the Government of Ghana and some waste management agencies, it would have been very difficult and almost impossible for some regions and communities to manage their sanitation crisis which could escalate into global threats with dire development consequences such as widespread.

The significance of this study therefore, is to contribute to knowledge in the field of Development Studies by revealing institutional cooperation in utilising communication tools and strategies in addressing sanitation crisis in Ghana, with specific reference to the La community of LaDMA. Towards this end, the study seeks to provide profound insights on how communication tools and mechanisms affect people's behaviour with respects to sanitation practices and attitudes in the La community.

The study also seeks to make recommendations which policy makers, students, and international organisations could rely on for interventions in sanitation crises anywhere in the world or future researches on the topic. Finally, in relation to contribution to science and academic, the study will help fill the knowledge gap in literature from the perspective of how communication could be utilised as an effective tool to change people's attitudes and behaviour with respect to improved sanitation practices.

1.6 Scope of study/Research Context

Notwithstanding various parts of Ghana confronted with sanitation crisis, this study focuses on the cooperation among private waste management agency (Zoomlion), the Government (LaDMA) and other relevant stakeholders in addressing the sanitation problems in the La community. It also examines the effects of effective communication in addressing poor sanitation in the area. Also, though sanitation connotes a wide range of hygienic conditions including collecting, disposal and recycling of refuse, water and sewerage, this particular study will limit itself to addressing the crisis of poor solid waste management in the La community of LaDMA.

1.7 Organisation of Study

The study is organised into five main chapters. Chapter One covers the introduction of the study, chapter two contained the literature review and conceptual framework and the third chapter covered the methodology that was used in the study. The remaining two chapters, chapter four and five presented the data analysis and discussion of results and the summary, conclusion and recommendations respectively.

CHAPTER TWO

LITERATURE REVIEW & THEORETICAL FRAMEWORK

2.1 Introduction

This chapter reviews various literature on the subject of this study. In this regard, various scholarly works from different sources such as books and journal articles were reviewed to give an in-depth understanding of the concept of sanitation, improved sanitation and communication. The review also entailed literature on strategies for promoting improved sanitation and the use of communication as a means for addressing sanitation crisis.

2.2 Global Statistics on Sanitation and Improved Sanitation

According to Bryson (2018), out of the global population of over seven (7) billion people, about 2.6 billion people are living without access to improved sanitation conditions, out of which 319 million people are in Sub-Saharan Africa. To support the assertions made by Bryson (2018), the 2017 World Health Organisation (WHO) Report also estimates that about 2.3 billion lack proper sanitation conditions, most of which are in developing countries including Ghana (WHO, 2017). According to the report, about 600 million people used a limited sanitation service; particularly in Sub-Saharan African countries including Ghana (WHO, 2017). Out of the about 2.6 billion denied access to improved sanitation conditions across the globe, about 2 billion live in rural areas whilst the rest dwell in urban communities (WHO, 2015). This proves that sanitation crisis is not just a challenge in rural areas but also in urban centers as well.

According to UNICEF Report (2015), nationally, on average 22.9% of people in Ghana do not have access to any sanitation facility (and such practice open solid waste disposal) and only 15%

use improved unshared sanitation facilities. This is particularly evident in the Upper East region, where about 89% of the population practice open solid waste disposal (highest rate in Ghana) and only 3% use unshared improved sanitation facilities (UNICEF, 2015). This is particularly evident in the “Upper East region, where about 89% of the population practice Open Defecation (highest rate in Ghana) and only 3% use unshared improved sanitation facilities” (UNICEF, 2015). This proves that sanitation crisis is not just a challenge in rural areas but also in urban centers as well. Ghana is one country in Africa which has been affected by the above fact, with study area (La community of LaDMA) being a clear case of the situation crises in the country. Literature in this section contribute to my study by giving statistics about people deprived of improved sanitation to show the relevance of carrying out this study.

2.2.1 Concept of Sanitation

Bartram & Cairncross (2010), explains the concept of sanitation as the hygienic means of promoting health through prevention of human contact with the hazards of wastes as well as the treatment and proper disposal of sewage. WHO/UNICEF (2017) also clarifies that sanitation as the maintenance of hygienic conditions, through services such as garbage collection and wastewater disposal.

On the basis of causes of poor sanitation, Tacoli (2012) revealed that poverty is the number factor or cause for teenage pregnancy by female teens from poorer family background which results in an increase in urban population and hence development of slums usually associated with poor sanitation conditions. To him, it is more likely for female teens living in poverty to become pregnant than teens from rich or wealthy homes. This work contributes to my study by showing one cause of poor sanitation. Notwithstanding poverty instigating teenage pregnancies

and hence urban population increase with consequent development of slums with poor sanitation conditions, his work did not point out that poverty also result in the inability to pay for waste management services, hence contributing mostly to poor sanitation conditions, as experienced in the La community. This is a gap my work will try to focus on.

In Ghana the sanitation conditions are generally poor in most communities. The situation is even much appalling in urban areas, particularly the capital (Accra) with the La community inclusive, (Owusu, 2010). This is largely associated with high population increase with proliferation of several slums in most populous areas. This further generates other developmental problems in such urban areas. This work also contributes to my study by identifying one major cause of sanitation crisis in Ghana; which is increasing population growth with its attendant developments of slums.

The high population rates in Africa have led to the development of several slums which has been a major contributor of poor sanitation conditions and services in such regions, (World Bank, 2010). This works also contributes to my study by identify development of slums as a major source of sanitation problem. However, most researchers including the World Bank Report in 2010 fails to acknowledge the role of geographical location in connection to population increase when analyzing sanitation conditions and services in an area. This is because there are countries such as the US, the UK, China and India with greater population size than that of Ghana but not suffer severe sanitation crisis. This is a knowledge gap which my work will try to explain.

According to The World Health Organization (WHO, 2017), achieving universal access to safe water and sanitation would save about 2 million lives every year. The inability to achieve

universal access to safe water and sanitation goes a long way to jeopardize the developmental efforts in every aspect of life of people dwelling in a particular region or area. This explains the situation currently existing in the La community in Accra, Ghana. This work also contributes to my study by identifying that sanitation problems could militate development in an area by causing environment pollution which could affect the health and longevity of inhabitants in a region.

According to the World Health Organization Report (2009), Malaria which affects about 3.5 million people yearly continues to be the leading killer of children in Africa; as a result of poor sanitation conditions. This literature also contributes to my study by revealing one dangerous effect of poor sanitation which is Malaria. This work however fails to identify cholera also, as becoming one major epidemic disease in Africa, particularly Ghana with special reference to the study area which is claiming a lot of precious lives as a result of poor sanitation. This is a gap my work will try to focus on.

In developing countries, as much of 80% of illness are linked to poor water and sanitation conditions (Mara et al, 2010). Although references are often made to developing countries in terms of poor sanitation and its attendant problems, there are also incidences of poor sanitation existing in some developed countries but at a very minimal rate. No country in the world experiences 100% improved sanitation in every part of the country. This literature contributes to my study by showing the effects of poor sanitation. This work however fails to identify that, the proportion of people in developing countries living in poor sanitation conditions is very alarming and create developmental problems in most of these nations. This is a gap my work will try to focus on.

According to Owusu (2010) women and children who are responsible for fetching water and its use for laundry, cooking, and domestic hygiene, and therefore suffers most in health-wise if supplies are contaminated due to poor sanitation conditions. In general, everybody suffers the consequences of poor sanitation conditions though it has been indicated that, women and children suffer most during crisis. This literature also contributes to my study because it identifies the category of people mostly affected during poor sanitation conditions. However, his work fails to identify how poor sanitation conditions adversely affect all and sundry in an area. This is a gap my work will try and focus on.

2.2.2 Concept of Improved Sanitation

Shastri et al (2010) defines improved sanitation as the adoption of measures and strategies to eliminate waste components in solid, liquid and gaseous forms towards promoting healthy living and better environmental conditions. Since the nineteenth century, there has been an increasing global concern and revolution towards improving global sanitation, especially in developing countries. In this vein, Daramola (2012) asserted that improved sanitation connotes an all-encompassing partnership through procedural decisions, strategies and practices in ensuring and promoting sanity in waste management. Though the concepts of sanitation and improved sanitation are geared towards promoting improved environmental and health security with respect to proper waste management, sanitation is deteriorating in most parts of developing countries including Ghana, whereas improved sanitation is almost elusive in most parts of these developing countries which has ramifications for health and environmental securities.

2.3 Strategies for Promoting Improved Sanitation

The efforts to promote improved sanitation has led to the development of several strategies by stakeholders including states, international organisations, media, waste management agencies, NGOs, among others. Sanitation strategies vary across geographical space based on the sanitation conditions pertaining in an area, as well as the waste management practices and behaviour adopted by a society. The Community-Led-Total-Sanitation (CLTS) which comprises community mobilization and health education (UNICEF, 2015), Participatory Hygiene and Sanitation Transformation tool (PHAST) which entails guidelines and plans towards achieving improved sanitation (UNICEF, 2015), School-based and child-friendly hygiene and sanitation programmes and Community Health Clubs (CHCs), (Mara et al, 2010) are among the wide range of strategies used for addressing sanitation. However, in recent times, the use of communication tools has also widely been utilised by stakeholders in influencing positive sanitation practices towards the attainment of improved sanitation conditions.

2.4 Communication

Communication is basically the act of transferring information through verbal messages, written messages, non-verbal signals and gaining a feedback mechanism from the transfer of information (Mehrabian,2017). Littlejohn & Foss (2010) defines communication as an activity of conveying information through the exchange of ideas, feelings, intentions, attitudes, expectations, perceptions or commands, as by speech, gestures, writings, behaviour and possible by other means such as electromagnetic, chemical or physical phenomena. It is the meaningful exchange of information between two or more participants (machines, organisms or their parts).

The reason for communication is also very essential for the achievement of an effective planning process of an organisation for addressing a social problem. The effective planning process is most often described as strategic planning process and is defined by Bryson (2018) as an organisation's process of defining its strategy, or direction and making decisions and allocating its resources to pursue this strategy. There is a widely held notion by most scholars and planners, that there are some areas of communication required to achieve effective planning process.

The channels of communication are very critical for an effective planning process towards addressing a social problem. The channels of communication are the strategies of communication which are very critical in ensuring that an organisation achieves an effective planning process towards addressing a social problem. Coombs (2015) therefore identifies two main channels of communication, namely the direct and indirect communication, based on the reasons for communication.

2.4.1 Direct Communication

According to Kandlousi et al (2010), direct communication can be achieved through verbal and nonverbal communication, where the intended is known or have direct contact with the communicator. In promoting public health, direct communication includes written forms such as letters, emails and reports as well as signs informing the reader of mandatory information like health and safety information (Kandlousi et al, 2010). It can also be provided by official bodies such as committees, international or regulatory bodies.

However, Bigas (2012) asserts that in addressing sanitation crises, the direct communications strategies include engaging in awareness creation and public education to conscientise people about the environmental and development threats created by poor sanitation and the need to curtail such threat. This is mostly achieved through education or teachings in schools, campaigns

by having personal interactions with inhabitants in an area, distribution of fliers on pamphlets on sanitation crisis, among others (Ibid). By employing direct communication tools or strategies, the intended audience have personal contacts with the conveyor of the message (Ibid). This is supported by Dixson (2012) who establishes that the direct methods of communication include company conferences, blogs, discussion forums, instant messaging, ad-hoc discussions/face-to-face meetings or verbal communication, video and telephone calls communication.

2.4.2 Indirect Communication

Kandlousi et al (2010) establishes that indirect communication on the other hand, is usually achieved through general communication in a social setting where the targeted audience are not usually known or have direct contact with communicator. To support this, Bigas (2012) explains that the indirect communication tools involve publicity through radio and television programmes, banners, posters, publications in newspapers, social media, SMS text messages and internet websites where the audience do not have personal contact with the conveyor of the message. This also corroborated by Dixson (2012) who establishes that indirect methods of communication include the internet news, Television (TV), notice boards, banners and posters.

2.5 Communication as a Tool for Addressing Sanitation Crisis

There are several reasons why we communicate. Some of the obvious reasons include satisfying personal needs, building a relationship, creating understanding, promoting change and persuade people and also to give instruction (Van Riel & Fombrun, 2007). Several scholars including Aarons et al, (2011), have identified that there is a link between communication and effective planning process in addressing a social problem. In short, the communication process should be able to bring about change (Gawande & Lloyd, 2010). For the communication process to

instigate and achieve an effective planning process, it should be able to bring about the engagement of everyone into the production process, to engender innovation and risk management. In other words, to establish a clear and meaningful strategic or effective planning process, all levels of stakeholders must be engaged through the channels of communication elaborated above.

The use of communication tools has also been adopted in more recent times as a means of addressing the sanitation crises, particular in urban centers (Shields & Ruehle (2016). In their study; *The Sanitation Crisis and Social Media: Sanergy in Kenya*, Shields & Ruehle (2016) employ an exploratory qualitative data to analyse the use of communication tools by Sanergy (a private organisation) in addressing sanitation crisis in Kenya. They established that by 2015, most Kenyans were subscribed on various social media which made it expedient and convenient for the executives of Sanergy to use social media as a communication tool to influence the behaviours of Kenyans towards positive attitudes for improved sanitation in the country.

They however revealed that majority of targeted population resided in slums where most inhabitants did not use smartphones and computers (desktops) or laptops, and those who even have access to such devices usually faced erratic internet connectivity problems. This militated against the effective realization of the vision of the Sanergy to convey messages through social media to influence the behaviour of slum dwellers in Kenya towards improved sanitation. They also identify the mistrust of some non-slum dwellers attached to their messages and publication, whether they are not maneuvered by scammers and fraudsters. This also posed a greater challenge to their vision to improve sanitation in Kenya by employing or utilising social media as a communication tool.

Progress in this regard can only be achieved when stakeholders mesh both old and new solutions in a smarter way of addressing sanitation crisis (Gambrill, 2016). One of the integrative approaches of meshing both new and old ways in a smarter way according to Gambrill (2016) is through toolkits and communication tools such as social media to mobilize and galvanize for global efforts toward addressing sanitation crisis. Such an approach according to Martin Gambrill will lead to the establishment of clear responsibilities and roles and responsibilities, as well as ensure accountability and transparency in addressing sanitation crisis.

Results from the United Nations International Children's Emergency Fund (UNICEF), Water, Sanitation and Hygiene for Diarrhea and Cholera counteractive action program in 2012, whose goal was to contribute towards advancing social change among families and networks in Liberia around Water, Sanitation and Hygiene with focus on preventing Acute Watery Diarrhea and Cholera, showed that communication strategies used by UNICEF for intervention in water and sanitation project include advocacy and mass media, state action and community participation, and these yielded significant result in reducing the incidence and spread of Acute Watery Diarrhea and Cholera in Liberia (Burkle et al., 2013).

2.6 The Institutions Responsible for Promoting Improved Sanitation in Ghana, including the La Community of LaDMA

There are several institutions and agencies responsible for ensuring improved urban sanitation conditions in the country. Table 2.1 shows the functions of governmental and non-governmental institutions that are responsible for curbing sanitation crisis in the country

Table 2.1 Institutions Responsible for Curbing Sanitation Crisis in Ghana

Institutions	Functions
Governmental Organisations	
Environmental Protection Agency (EPA)	Ensures that the activities of citizens and organisations in the country do not harm the environment and water bodies.
Community Water and Sanitation Agency (CWSA)	Works with the District Assemblies to ensure sustainability of water service delivery and improved sanitation in rural and urban communities.
Ministry of Local Government, Rural Development and Environment (MLGRDE)	Responsible for the management and treatment of wastes in water bodies in rural and urban areas. It does so through the Metropolitan/Municipal and District Assemblies.
Ministry of Education (MOE) / Ministry of Health (MOH)	Carry out public education and provide health guidelines respectively on the need to maintain improved sanitation.
Ministry of Environment, Science Technology and Innovation (MESTI)	Ensures that human activities undertaken by both nationals and foreigners are consistent with the country's environmental policies and objectives.
Non-Governmental Organisations	
Private Waste Management Agencies such as Zoomlion.	These are independent private bodies which undertake solid waste management activities across the country, particularly in the capital city.

Source: Researcher's own construct (2018).

These Governmental and Non-governmental organisations are part of the restructuring strategies of the Government of Ghana to ensure efficiency and effectiveness in the promotion of improved sanitation towards promoting the human security of Ghanaians, as well as achieving global agenda such as the Sustainable Development Goal Six (SDG 6) of Ensuring Environmental Sustainability.

Environment protection is an essential duty contributing to the health, productivity and welfare of the people of Ghana. To achieve this goal, Ghana has certain objectives governing the operations of the above institutions. Paramount among such objectives includes acting in liaison and cooperating with other government agencies in addressing sanitation crises (Owusu, 2010), collaborating with foreign and international agencies, as necessary; conducting investigations into environmental and sanitation issues (Ibid); coordinating the activities of bodies concerned with the technical aspects of the environment for the purpose of controlling the generation,

treatment, storage, transportation and disposal of solid waste (Meizah et al, 2015); and ensuring compliance with environmental impact assessment procedures (Ibid). Other objectives also include issuing environmental permits and pollution abatement notices; making recommendations to the government for the promotion of improved sanitation (Azuliya, 2017); prescribing standards and guidelines related towards achieving improved sanitation (Ibid); protecting and improving the quality of the environment and sanitation conditions across the country (Owusu, 2010) and the control and prevention of discharge waste into the environment (WHO, 2017), among several other functions.

2.7 Theoretical Framework (Strategic Sanitation Communication Theory)

This study utilises the Strategic Sanitation Communication Theory in its analysis. The Theory of Strategic Sanitation Communication alludes to the utilisation of strategic communication channels and tools to encourage improved behavioural patterns towards sanitation practices or tackle sanitation crisis in an area (Quebral 1973). Strategic Sanitation Communication connects with partners and strategy creators, sets up helpful situations, surveys risks and opportunities and induces positive social change by means of addressing sanitation crisis through strategic communication (Jamias, 1975). Strategic Sanitation Communication methods incorporate dissemination, awareness creation and education, social mobilization and community participation, social marketing, media advocacy and behavioural or attitudinal change towards addressing poor sanitation conditions.

The theory has been alluded to Jamias Juan as the main proponent for the ideas of Strategic Sanitation Communication.

There are several definitions advanced to capture the tenets of Strategic Sanitation Communication. Erskine Childers explains Strategic Sanitation Communication as the strategic

communication which is achieved through careful planning and implementation geared towards reforming behaviour and attitudes towards improved sanitation practices (Lofranco, 2009). A recent incorporating meaning of Strategic Sanitation Communication expressed by Quebral is that it is the craftsmanship and study of human communication connected to a transformation of a society from a condition of poor sanitation to an improved sanitation condition that makes for more prominent uniformity and better discovering and utilisation of individual potentials (Quebral, 2011). As indicated by the World Bank, Strategic Sanitation Communication is the incorporation of strategic communication in addressing sanitation crisis based on understanding of indigenous challenges or realities (Manyozo, 2012). What's more, the UNICEF sees Strategic Sanitation Communication as a two-route process for strategic information sharing and learning, utilising a scope of technological devices and methodologies that enable people and networks to take activities to improve their sanitation conditions (Kay, 2013).

To summarize, the tenets or assumptions of the Strategic Sanitation Communication Theory posit purposeful and strategic communication towards reforming attitudes or behaviour in addressing sanitation challenges or crises. This means that, communicators in making decisions to address sanitation challenges have a goal or end alternatives and try to utilise communication as a strategic tool towards addressing such sanitation crises (Adhikarya, 2016). Communicators are therefore able to relate their communication strategies, channel and tools and act consistently with their set goals of achieving improved sanitation conditions (Coombs, 2007). Thus, communicators are intelligent and will always make the optimal choice through strategic methods in conveying their message which will yield the best positive feedback in addressing poor sanitation conditions. The optimal choice refers to that decision that which brings the most

benefits or positive feedbacks after communication has been utilising as a strategic tool in addressing poor sanitation conditions (Coombs, 2007).

Communication is said to be strategic and effective if it yields best positive feedbacks or influence social behaviour towards improve quality life. Communicators therefore adopt strategies that would enhance the understanding of listeners to induce a behavioural change in attitude towards improved behavioural patterns. In the same instance, Listeners are motivated by how the message they receive will have positive impacts on their lives. Therefore, Listeners are more often than not susceptible to messages which will have positive impacts in their lives than negative consequences. With sanitation crisis evident in some parts of the world; especially Africa, countries may have different approaches to addressing the challenge and why they stick to such approaches.

The Strategic Sanitation Communication theory is not without criticism. It has been criticized on several grounds. Some of these limitations are explained hereafter. The first is the issue that communicators are always strategic, and such make optimal choices to automatically yield positive or best feedbacks of improved sanitation conditions. With this, it is argued by McPhail (2010) that communicators' choices are limited or determined by the amount of information available to them at the time they adopted the channel, methods or strategies for communicating to their audience. This suggests that, the context in terms of the information available at the given time may make a communicator seem to be strategic and have made the best choice to communicate to his audience which might not always be the situation.

However, such given information may not be true or wholesome enough and this affects the supposed strategic decisions of communicators in addressing sanitation crises. Another limitation of the theory is that it assumes that all communications are made for addressing sanitation

problems or influencing attitudes towards positive behavioural practices. Some communications are made for other reasons such as entertainment or emotions, hence exposing a flaw of the Strategic Sanitation Communication theory (Dainton and Zelle, 2017). Again, the model is limited by the principal-agent problem. It is well and good if their goals are in line but where the listener's goals are different from the communicator's goals, what starts out as a strategic communication may be implemented in a way that might bring adverse results (Baran & Davis, 2011).

In addition, the theory downplays notions of sacrifice, volunteerism and altruism. This is because, it holds firmly that messages from communicators are strategic and calculated to bring optimal benefits with the least consequences as possible. However, the theory ignores the fact that a listener to a message may make a decision which is not the most optimal out of sacrifice or self-gratification. The optimal choice by a communicator is not necessarily the best decision because clearly, listeners do make mistakes based on the message they may have heard or received from a communicator (Manyozo, 2012). Listeners decisions may have unintended consequences and they may at times take deliberate risks contrary to goals of a Communicator.

Notwithstanding these criticisms, the Strategic Sanitation Communication theory is best suited for this study. This is because La community is bedeviled with sanitation crisis which needs an urgent proactive approach in addressing the situation. The theory thus provides a clearer framework to properly examine the utilisation of communication as a strategic tool by Zoomlion in influencing positive attitudinal sanitation practices and management in tackling the sanitation challenges in the area.

2.8 Conceptual Framework for Addressing the Sanitation Crisis in the La community

This conceptual framework is of great essence to this study because it helps in understanding and appreciating, examining the effectiveness of communication tools employed by the Zoomlion in addressing the sanitation crisis in the La community. The Conceptual framework suggests that the utilisation of proper direct and indirect communications tools and strategies such as house to house campaigns, sharing of fliers, TV and radio shows, billboards and posters by waste management agencies such as Zoomlion can reform the attitudes of the inhabitants towards improved sanitation practices and better household waste management, which will consequently result to improved sanitation in the La community. The conceptual framework is further illustrated in Figure 2.1.

Figure 2.1 A Conceptual Framework for Analysing the Effectiveness of Communication Tools.



Source: Researcher's Construct, 2018.

2.9 Conclusion

Sanitation and improved hygienic conditions is of great concerns across the globe since they contribute profoundly to sound living, economic improvement, social pride and general environmental security. It is in this vein that all stakeholders must be effectively associated with advancing and promoting sanitation. Likewise, there is the need for innovative strategies to quicken and support the techniques that are set up towards promoting improved sanitation. Nevertheless, this is impossible to achieved improved sanitation without steady research in areas with poor sanitation conditions.

Greater attention in literature has focused on the role of government and public institutions in promoting improved through various strategies. One area which needs attention, yet lagging in scholarly exploration is the role played by Private Waste Management in utilising communication strategies in addressing sanitation crises. Therefore, the review of various literature in this chapter has helped to reveal and broaden the understanding on the concepts of sanitation and improved sanitation. The Chapter also considered various strategies and institutional frameworks used in promoting improved sanitation in Ghana. These led to the development of a conceptual framework purposely for analysing the use of communication strategies in addressing the communication crises in the La community of LaDMA.

CHAPTER THREE

RESEARCH METHODS

3.1 Introduction

This chapter explains the research methodology which was used to collect the data. This chapter consists of background information of Zoomlion-Ghana Limited and the La Community, data collection methods, sampling design, research instrument, research design, data processing, data analysis and finally, limitations of study.

3.2 Study Area

La is one of the six major divisions of the Ga-Adangbe group in Ghana including Ga Mashi (Central Accra), Osu, Teshie, Nungua and Tema. It is believed that the inhabitants originally migrated from the East of the Gold Coast from around Nigeria-Ile-Ife through Benin then Togo to their current Accra plains. The people of La speak the Ga language which belongs to the Kwa sub-group of the Niger-Congo family (Owusu, 2010). Traditionally, they have the chieftaincy system and administrative body led by a Principal Chief, who is also the custodian of the lands in the community.

The traditional economic activities of the people of La are fishing, trading and subsistence or small-scale farming. They engage in cultivation of crops such as maize, millet, okro, pepper. The people of La celebrate the Homowo festival which literally means “hooting at hunger” which the people suffered several centuries ago.

The land surface area of 588.8 hectares covered by the La community has been put to several uses (Owusu, 2010). Paramount among these uses includes settlement patterns, schools,

hospitals, recreational centers, businesses and enterprises etc. Relevant to its land use include the Five-Star hotel; the Labadi Beach Hotel and also the La Palm Royal Hotel. Also, the existence of the Ghana International Trade Fair Center and the Palace of the traditional leader (chief) of the land are very important land use features which draw a lot of people to the area. Though these business activities contribute to economic development through payment of taxes to the Government, poor sanitation conditions due to poor disposal of solid wastes continues to be a greater development challenge in the area.

As captured in LADMA (2013), the municipal which has a hundred percent urban status is faced with lack of effective sanitation and waste management which is a great burden to the authorities. Zoomlion, a private waste management agency is responsible for almost ninety percent of waste management across the community. It is in this vein that this study examines the effectiveness of the communication methods used by Zoomlion towards improved sanitation in the area.

3.3 Background Information of Zoomlion Ghana Limited

Zoomlion Ghana Limited is a giant in the waste management as well as environmental sanitation business in Ghana and Africa as a whole. The company was formed under the company's Act in January 2006. The Company which was formed in 2006 as Zoomlion Ghana Limited with a few numbers of staff has now grown over the past seven years. It now has a total core staff of 3,000 and manages over 85,000 workers under various forms of Public-Private Partnerships (PPP). Zoomlion also operates in other African countries such as Togo, Angola, Zambia and Equatorial Guinea and Liberia while negotiations are far advanced for the company to start operations in other African countries such as Sierra Leone, Southern Sudan.

Zoomlion Ghana Limited is committed to building a long-lasting relationship with private sector customers, Ministries, Department and Agencies (MDAs) of central Government, Metropolitan, Municipal and District Assembly (MMDAs), local Authorities, and communities to ensure clean, green and healthy environmental conditions. Zoomlion Group has hired and continues to hire the requisite expertise and competent personnel both home and abroad at all levels, and the management boasts of some of the most experienced professionals in waste management (Zoomlion, 2019).

3.4 Research Design

This study employed the Mixed Research method as the main research design where both quantitative and qualitative research methods for data collection and analysis were used. Structured questionnaires were administered to some inhabitants of the La community whilst unstructured interviews were conducted with some Officials of Zoomlion, LaDMA, the La Traditional Council, personnel of LATENU Radio Station, Health Institution, Education Institution, a CBO and some NGOs to obtain qualitative data pertinent to the topic.

3.4.1 Quantitative Research Methods

Quantitative research involves systematic empirical enquiry or investigation of observable phenomena through mathematical, computational or statistical techniques (Rovai and Ponton, 2013). For this particular study, the quantitative approach used involved administering of questionnaires (See Appendix I).

Questionnaires were administered in various households in the La community mainly to women and the youth since they are mostly affected during the crisis of poor sanitation with relations to health conditions and economic activities (Owusu, 2010). Both closed-ended and open-ended

questions, together with multiple choice questions were employed in the questionnaire. The closed-ended method was employed to limit the options of the respondents and helped with the completion of the questionnaire with ease. The questionnaire also entailed the open-ended questions in order to derive some information on the beliefs, opinions and misconceptions, understanding, perception and behaviour concerning the sanitation practices in the La community.

3.4.2 Qualitative Research Methods

qualitative data was collected through in-depth interview technique Experts or officials from Zoomlion office, LaDMA, educational, religious and health institutions, the La Traditional Council, the media, CBO and some NGOs were interviewed to know how effective communication can be used to address sanitation issues and how these have impacted the perception, understanding and behaviour of the inhabitants of the La community (See Appendix II). This helped to complement data received from questionnaires.

3.5 Data Collection Methods/Sources of Data

Slideshare (2012) identifies that, research can be conducted with different methods, but every research is based on the data which is analysed to get information. This particular study used both primary and secondary data to analyse how communication tools can influence good sanitation management in the La community of LaDMA.

Primary quantitative data was obtained through questionnaires administered to the inhabitants of the La community to know their perception, understanding, and behaviour with respects to sanitation practices in the study area through the use of communication tools (See Appendix I).

In addition, primary qualitative data was obtained through unstructured expert interviews using an interview guide from officials of Zoomlion office, LaDMA, educational, religious and health institutions, the La Traditional Council, the media, a Community Based Organisation (CBO) and some Non-Governmental Organisations (NGOs) (See Appendix II).

The study also used secondary data from sources such as journal articles, books, news reports, newspaper articles, video documentaries and commentaries. Online websites where relevant data pertinent to the topic was sought for. Hard copy materials were obtained through libraries of institutions such as the University of Ghana, Institute of Statistical, Social and Economic Research (ISSER), LaDMA, whilst others were purchased.

3.6 Sampling Design/Techniques

Sampling is a process that uses samples selected for a certain population in a research project (Ross, 2005). There are various sampling techniques, however this study utilised the convenience and purposive methods. Convenience sampling is a non-probability sampling technique where participants or subjects included in a particular study are selected due to their convenience or proximity to the researcher (Tong and Craig, 2007). This method is chosen for the study due to the convenience and availability of respondents/participants who gave responses to questionnaires or were interviewed. A purposive sampling according to Tongco (2007) involves intentionally selecting units of the sample population for a particular research based on the purpose of the study. The study had a key objective which was to examine how Zoomlion utilises communication tools as a strategy to ensure improved sanitation management in the La community. There was therefore the need for key informants or experts to provide relevant data for the successful conduct of the study. This justifies the selection of the purposive sampling

technique in selecting key informants or experts, as well as some inhabitants in the La community in providing vital data for the analysis of the topic under study.

3.7 Sampling Size

According to Sekaran and Bougie (2010), too large or small sampling size is not suitable to generate a good result. Therefore, the sample size for this study involved one hundred and twenty (120) respondents or inhabitants of the La community selected purposively from each of the six areas considered for the study. The respondents included students, workers, the unemployed and parents for the quantitative aspect, whilst for the qualitative aspect, fourteen (14) expert interviews were conducted involving personnel of LaDMA, Zoomlion, the media, the La Traditional Council, educational, religious and health institutions, a Community Based Organisation (CBO) and some Non-Governmental Organisations (NGOs) and five inhabitants in the La community. Selection of respondents for experts was done purposely to provide relevant data for the study.

According to Austin & Pinkleton (2006), after a questionnaire or interview guide has been created, it is better to conduct a pilot testing to ensure that the interview guide or questionnaire is good and supported. In this regard, a pilot test was conducted before the actual survey was carried out. For the quantitative aspect, this pilot test was carried out in the La community with respondents who were not included in the actual study. This was done in order to increase the reliability and the validity of the questionnaire by identifying the strength and weaknesses of the questions. The purpose of the pilot test was to examine the reliability and consistency of the questionnaires before the actual result is analysed.

3.8 Data Analysis

Data collected from questionnaires or quantitative data sources were analysed by the use of SPSS (Version 18) and Excel. In addition to the above, recorded interviews were transcribed and the contents were analysed thematically the qualitative data for this study was grouped into the various thematic areas. Inferential statistics such as Chi-square was used to show the association between communication and addressing sanitation crisis in the La community. Descriptive statistics such as percentages, mean was also done to summarise the socioeconomic status and other response of the respondents.

3.8 Limitations of the Research

In the course of this research, some challenges were encountered:

Firstly, lack of cooperation by some inhabitants and authorities of some localities in the study area, in connection with primary quantitative data collection for the research was a challenge which needed to be pinpointed. There was also a challenge to gain access to some top officials intended to provide relevant qualitative data for the purpose of this study as a result of their busy schedules. To overcome these challenges, the researcher out of convenience had to rely essentially on only respondents who were available and willing to participate in the study during the period of data collection. This posed a greater challenge to the overall primary data obtained for analysis.

3.9 Conclusion

In summary, Chapter Three specifies the research methodology which was used to collect the applicable data for analysis. This chapter consisted of research design, data collection method, sampling design and data analysis. In summary, data analysis for the study utilised the two-fold approach involving (i) content analysis of secondary data on sanitation crisis (ii) thematic analysis of primary data collected through questionnaires and interviews from inhabitants of the La community to know their perception, understanding, and behaviour with respects to sanitation practices in the study area.

CHAPTER FOUR

DATA ANALYSIS & INTERPRETATION OF FINDINGS

4.1 Introduction

This chapter makes an analysis of field data collected to be able to ascertain the effects of communication tools employed by Zoomlion as a strategy in cooperation with other relevant stakeholder in addressing sanitation crisis in Ghana, with specific reference to the La community. Analyses of the field data and the interpretation of the findings, included demographics of respondents, awareness of communication tools and strategies utilised in addressing the sanitation crisis in the La Community, the main direct and indirect communication tools employed in addressing sanitation crisis in the La community, the collaborative or cooperation efforts between Zoomlion and other relevant stakeholders in the La community, the effectiveness of the communication tools on people's attitudes and behaviour with respect to sanitation practices, and finally the challenges confronting Zoomlion and the LaDMA in addressing the sanitation crisis in the La community.

4.2 Demographics of Respondents

The demographic data collected include gender, age, educational levels, marital and occupational statuses of respondents who were included in the study. Out of a total 120 respondents who were included in this study, more than half of them, about 60 percent were females whilst the males constituted about 40 percent of the sample size as observed in Table 4.1. Data on the gender of

respondents was collected to ascertain whether attitudes and behaviour with regards to sanitation practices in the area is gender-based.

Table 4.1: Demographics of Respondents

Category	Variable	Frequency	Percentage (%)
Gender	Male	48	40
	Female	72	60
Age	15-26yrs	48	40
	27-38yrs	38	32
	39-50yrs	24	20
	Above 50yrs	10	8
Education Level	Professional	12	10
	Tertiary	36	30
	Junior High Level	24	20
	Senior High Level	48	40
Marital Statuses	Married	50	42
	Single	67	56
	Widow/Widower	3	2
Occupational Statuses	Official Occupation	10	8
	Informal Occupation	67	56
	Unemployed	43	36

Source: Fieldwork, 2018.

Data was also collected on the ages of respondents. As indicated by the Zonal Operation Officer:

“the age ranges of the targeted group would enable us know whether to employ direct or indirect communication tools and strategies in influencing positive sanitation practices among inhabitants of the La community”

This is because it observed that sight and hearing depreciates with ageing. So the direct communication tools are usually employed for the aged whilst indirect communication tools and strategies are used for relatively youthful population to influence their behaviour towards positive sanitation practices and attitudes in the La community. The age of the respondents was taken into keen consideration in relation to understanding the objectives of the study, to think

critically in providing relevant data for the study. Therefore, the age distribution of respondents ranged from 15 years to above 50 years, with the majority of them, representing 40 percent of the sample size being within 15-26 years as observed from Table 4.1. Also, 32 percent were within 27-38years. Table 4.1 also shows that 20 percent of the respondents were within 39-50 years and only 8 percent of the respondents were above 50years. This means majority of the respondents were youths, whilst only few adults were included in the study. Since majority of the respondents were the youths, it was also revealed as observed from Table 4.1 that the majority of the respondents, representing, 56 percent were single, with only 42 percent being married, only 2 percent constituted either a widow or widower. In Ghana it is often presumed that married people have greater responsibilities and such usually busy in society as compared to single people who may also be dependent on the married people. This may also influence the extent to which individuals may contribute to positive attitudes and behaviour in relation to improved sanitation practices in society.

Literacy is also very important in determining which communication tools or strategies to be employed for addressing the sanitation crises in the La community. The Zonal Operation Officer explained in an interview that:

“the level of education of the inhabitants of the La Community enables them to decide whether to adopt direct or indirect communication tools and strategies in influencing positive sanitation management in the La community”

Formal education in contemporary times is alluded to civilization and enlightenment for societal development. Respondents’ educational level ranged from Junior High School to Professional certifications. The study included respondents from four main educational levels (i.e. Junior High School, Senior High, Tertiary level and Professional Certification) with respondents who

are at or had obtained their highest education at the Senior High level constituting the majority, representing 40 percent of the sample size. Respondents who were either at or had obtained tertiary education constituted 30 percent of the sample, whilst those with Junior High education or reached that stage as their highest education attainment constituted 20 percent of the total sample size and only 10 percent of the respondents had or were pursuing professional degrees. This is depicted in Table 4.1.

The Zonal Operation Officer pointed out in an interview that:

“the occupation of the inhabitants of the La Community enables them to decide whether to adopt direct or indirect communication tools and strategies in influencing positive sanitation management in the La community”

Occupation statuses to a very large extent determine the standard of living of people in a society. In relation to this study, such data of respondents shows whether or not individuals will generate enough income to be willing to pay for services of Private Waste Management such as Zoomlion. This also influenced the extent type of communication channel to be used or employed to influence improved sanitation practices among inhabitants of the La community.

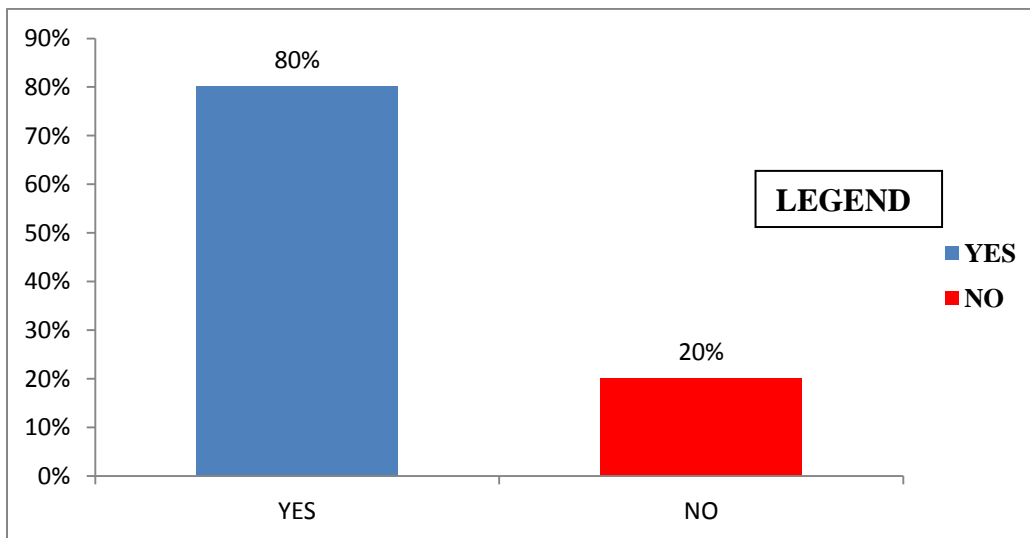
With regards to occupation, it was revealed that only 8 percent of respondents have official occupations such as doctors, teachers, lawyers among others. Majority of the respondents, making 92 percent of the total sample size have occupations either in the informal sector such as trader, carpenter, ‘trotro’ driver, credit officer, bus conductor, among others or are unemployed. Most of these respondents generate or have meagre income levels and as such are unable to engage the services of public or private waste management agencies to pay for their solid waste disposals. Consequently, most respondents therefore resort to burning of their solid wastes or

resort to other means of disposal of their refuse, which sometimes include improper disposal at unauthorized places. This has largely contributed to the poor sanitation conditions in most parts of the La community.

4.3 Awareness of Communication Tools and Strategies Utilised in Addressing the Sanitation Crisis in the La Community

Every institution has a strategy to reach its target audience. Zoomlion as a Private Waste Management Agency is no exception. There are several communication tools adopted as strategies by Zoomlion which are very crucial as far as the agenda for addressing the sanitation challenges in the La community is concerned. In view of this, data was collected on Inhabitants' awareness of the communication tools employed by Zoomlion-Ghana in addressing the sanitation crisis in the La community. See Figure 4.1.

Figure 4.1: A Simple Bar Chart Showing Inhabitants' Awareness of the Communication Tools Employed by Zoomlion-Ghana in Addressing the Sanitation Crisis in the La Community.



Source: Researcher's Fieldwork, 2018.

Out of 120 respondents who were included in the study, 80 percent (96 respondents), representing the majority asserted to the fact that they were aware of the communication tools used by Zoomlion-Ghana to address the sanitation crisis in the La community. Only 20 percent (24 respondents) claimed they did not know or have a fair knowledge about the communication tools and strategies utilised by Zoomlion in addressing sanitation crises in the La community. However, in an interview with the Zonal Officer of Zoomlion, he revealed that

“it would be very strange not to know about the communication tools used by Zoomlion-Ghana to address the sanitation crisis in the La community., since they are used regularly and constitute the integral part of the operations, services and activities of the organisation in the community.”

Zoomlion adopts both direct and indirect communication tools as strategic means of addressing the sanitation crises in the La community. The direct communication tools are geared towards influencing positive sanitation practices at the household or individual levels, whereas the indirect communication tools focus essentially on influencing positive sanitation practices and behaviour at the community level.

Not all the communication tools and strategies adopted particularly by Zoomlion in addressing the sanitation crisis in the La community is noticeable or conspicuous to the inhabitants who asserted that they are aware of the utilisation of communication as a strategy in addressing the sanitation crisis in the area. However, From Table 4.2, the major communication tools and strategies adopted by Zoomlion as confirmed by the 96 respondents were aware of such strategies included refuse vans with siren, house-to-house publicity, fliers, posters and banners, radio and television adverts and programmes on sanitation, social media, community seminars and durbars and festival debate programmes on sanitation.

Table 4.2: Cross-tabulation on Inhabitant’s Assertion about the Major Communication Tools and Strategies Used in Addressing the Sanitation Crisis in the La Community

Communication tools or strategies	Gender				Total	
	Male		Female		La Community	
	Freq. (N)	Percent (%)	Freq. (N)	Percent (%)	Freq. (N)	Percent (%)
Zoomlion refuse vans with sirens	15	15.6	18	18.7	33	34.3
House-to-house publicity	10	10.4	9	9.4	19	19.8
Radio and Television shows on sanitation	7	7.4	8	8.3	15	15.7
Others such as Social media, durbar, festivals and seminars.	8	8.3	21	21.9	29	30.2
Total	40	41.7	56	58.3	96	100

Source: Researcher’s Fieldwork, 2018.

Gender determines the distinctive roles played by men and women in tradition Ghanaian society. It often asserted that women and girls are responsible for house-keeping whilst men or boys are usually the bread winners. Since women are usually considered home keepers in typical Ghanaian society, it is expected that most of sanitation practices and behaviour are observed by women than men, though both men and women have a vital role to play in ensuring improved sanitation conditions in a society. Therefore, as indicated by Zonal Operation Office of Zoomlion in an interview:

“The direct communication tools and strategies are employed when women and girls are the target group whilst the indirect tools and strategies are administered to men and boys with reference to utilising communication mechanisms in influencing positive sanitation mechanisms in the La community.”

This is because it mostly perceived that women and girls are mostly affected by sanitation crisis compared to men and boys.

4.3.1 Direct Communication Tools used by Zoomlion in Addressing the Sanitation Crisis in the La Community

The direct communication tools utilised by Zoomlion in addressing the sanitation crisis in the La community include direct mails and emails, telephone calls, letters and on-the-ground publicity or advertisement through the use of sirens from its vehicles or by personnel of Zoomlion sharing fliers, pasting posters and also hanging banners to communicate the agenda of the organisation to individuals and households in the La community.

4.3.1.1 Mails and Emails

Soliciting for support through emails have become commonplace as a direct marketing strategy in contemporary globalized business world. This method is also largely employed by Zoomlion as a communication tool for soliciting and galvanizing support from government officials such as the Member of Parliaments (MPs), Assemblymen and women and traditional authorities including the Chief in the La community for its operations of ensuring and providing regular sanitation services. In an interview with an employee at the Zoomlion (Zonal Operation Manager), he asserted that;

“Zoomlion-Ghana sends direct emails to some reliable government officials and traditional authorities in the La community who believes in their mission and vision of the organisation to cooperate and support in their agenda and operations of promoting and maintaining improved sanitation in the La community. Therefore, Zoomlion has an official email through which it contacts and also receive feedback from relevant stakeholders who support the cause of promoting and maintaining improved sanitation in the La community. He indicated that this is a direct strategic sanitation communication

tool which is adopted by Zoomlion to communicate with stakeholders to promote improved sanitation in the La area, which the inhabitants may not be aware of.”

The reliance on this method by Zoomlion Ghana is because it gives assurance that the intended recipient receives the mails and will revert accordingly. Also, drafting of emails requires less technicalities and designs, therefore most convenient to be adopted by the organisation. It also mostly relied on by the organisation because it is less expensive and allows for feedback from recipients.

4.3.1.2 Telephone Calls

Aside physical contacts to communicate or interact as a way of transacting businesses and also establishing and enhancing relations, the uses of telephones and mobile phones have facilitated easy access to facilitate communication across the globe. An interview with an employee of Zoomlion-Ghana, revealed that,

“the organisation has official telephones lines and mobile numbers through which it reaches out to the general public including the La community to provide strategic sanitation communication for promoting proper waste management services and functions.”

This direct strategic sanitation communication tool is covert and not overt, so inhabitants may not be aware of its usage in promoting sanitation in the La community. However, Zoomlion relies on this strategy in communication with stakeholders responsible for ensuring and promoting improved sanitation in the La community.

4.3.1.3 Letters

More so, letters are also used by Zoomlion to provide strategic sanitation communication with stakeholders to promote improved sanitation in the La community. This direct strategic sanitation communication is also covert and not overt, so inhabitants may not be aware of its usage in promoting sanitation in the La community. An employee of Zoomlion-Ghana pointed out that

“just as the organisation has an official email address and telephones for reaching its donors, it also has an official Postal address through which it sends and receives letters.”

In this vein, Zoomlion-Ghana also uses letters as a direct strategic communication channel to reach out to the general public including some government officials and traditional authorities of the La community to cooperate and support certain special programmes, campaigns and activities they wish to embark on to help improve the sanitation condition in the area. However, preparing letters to be posted or delivered to several stakeholders in the La community who are committed to promoting improved sanitation conditions in the La community makes this strategy very tedious and a bit expensive.

4.3.1.4 On-the-Ground House-to-House Publicity

Occasionally workers of Zoomlion, peer educator groups, as well as NGOs do embark on house to house publicity as a strategic sanitation communication mechanism to create awareness about the embarrassing state of filth in the La community and educate inhabitants on the better strategies to adopt. Since this strategy is overt, some of inhabitants included in study considered it as one of the major communication strategy used by Zoomlion in promoting better solid waste management and improved sanitation in the La community.

Data from Table 4.2 reveals that about 34 percent of inhabitants are aware of this strategy as one of the most effective communication strategy to reform attitudes of the inhabitants of the La community towards improved sanitation practices. To corroborate this, an employee from Zoomlion revealed that one of the most reliable strategic sanitation communication strategy used by Zoomlion in addressing the sanitation in the La community is to

“sensitise, educate and create awareness of the organisation’s operations, services and activities through on-the-ground house to house campaigns on effective solid waste management and improved sanitation practices”

In this way, some employees of the organisation are usually sent to go and distribute specially designed fliers, envelopes, posters or to do house-to-house publicity of upcoming events and projects which will require their commitments and cooperation of the inhabitants or residents of the area.

4.3.1.5 Zoomlion Refuse Vans with Sirens

The use of Zoomlion refuse vans with sirens have become common place, especially in Accra in communicating sanitation management strategies to the general public. About 34 percent of the respondents as depicted in Table 4.2, revealed that the use of the Zoomlion van is one of the major tools used to communicate improved sanitation practices to the inhabitants of the La community. To support this assertion, the Zoomlion-Ghana Zonal Operation Manager in an interview revealed that

“Siren refuse vans are often used to convey strategic and improved sanitation messages and also to make publicity on up-coming clean up exercises at designated areas within the La community”.

This strategy ensures wider communication coverage and facilitates faster movement from one location to another in ensuring Zoomlion has direct contact with inhabitants especially with the collection of solid waste towards ensuring and promoting improved sanitation conditions in the La community.

4.3.1.6 Community Seminars, Durbars and Festival Debate Programmes on Sanitation

Community seminars, durbars and festivals have also become very useful strategic sanitation communication channel employed by Zoomlion to increase awareness on the need for improved sanitation conditions in the La community. From Table 4.2, there are some inhabitants who constituted 30 percent of respondents who asserted that Zoomlion utilises other communication strategies including community seminars, durbars and festival debate programmes in influencing attitudes and sanitation practices among inhabitants of the La community. As revealed in a personal interview with an employee of LaDMA (Municipal Information Officer),

“There is no operation and service provided by Zoomlion to the inhabitants of the La community without the knowledge of the Municipal Assembly. Therefore, Zoomlion cooperates or partners with the Municipal Assembly in utilising communication as a useful strategy to provide sanitation services and programmes to the inhabitants of the La community through seminars, open fora, durbars, special development discussions and debates during the La Homowo festival as well as some community fun games such as the La-Top 4 Football Gala Competition, among others”

Management and staff of Zoomlion-Ghana are usually invited during the above occasions to give talks on the sanitation conditions in the areas, the main causes of the poor status of sanitation in

the area, the dire human security threats it poses to the inhabitants and remedies which could be taken to reverse and address the situation.

4.3.2 Indirect Communication Tools Used by Zoomlion in Addressing the Sanitation Crisis in the La Community

The indirect communication tools used by Zoomlion to address the sanitation crisis in the La community include social media, broadcast SMS text messages, television and radio discussions, siren refuse vans and community seminars, durbars and festival debate programmes on sanitation.

4.3.2.1 Social Media

In the ever-changing globalized technological world, online tools have provided essential platforms for organisations to carry out interactive relations with their clients at ease. From Table 4.2, some 30 percent of respondents included in the study asserted that Zoomlion utilises other sanitation communication strategies including social media in influencing attitudes and sanitation practices among inhabitants of the La community. In this vein, an employee revealed that

“Zoomlion-Ghana relies on online tools particularly social media to provide strategic sanitation communication to citizens of Ghana, including the La community, on sanitation issues and challenges across the country”

The organisation achieves this objective by posting messages and advertisements on their social media platforms to their trusted contacts such as individuals, organisations and government institutions to support them with their agenda of improving sanitation, especially in the La community.

The social media has a significant usage among people of the African continent. According to the Internet World Stats (2018), the total population of Africa as at June 30, 2016, is 1,185,529,578 representing 16.2% of the total world's population. Out of this figure, 340,783,342 people are internet users representing 9.3% of the total world internet users' population of which 146,637,000 people use Facebook (Internet World Stats, 2018). The rate at which social media is penetrating the lives of many is increasingly progressing and at a fast rate. About 29.6% of Ghanaians are internet users. As at June 2016, 7,958,675 of the Ghanaian population are users of the internet as compared to 30,000 internet users in the year 2000. Out of the 7million internet users in Ghana, 3,500,000 are Facebook users (Internet World Stats, 2018). In Ghana, the most used social media site is Facebook with about 94.89% usage in the country. Twitter is ranked second with 3.97%, Pinterest ranks third with 0.62%, Google+ ranks fourth at 0.18% and the remaining social networks holds 0.345 using mobile internet (Internet World Stats, 2018).

The above data shows the progressive rate at which the internet as well as social media is merging fast into the lives of the African people. It is in this vein that Zoomlion-Ghana relies on this method as a communication strategy to reach out directly to citizens, especially social media such as Facebook, twitter, LinkedIn, WhatsApp among others to sensitise, educate and inform the general public including the La community of its operations and activities. This supports researches findings by Shields & Ruehle (2016) who revealed how the use of social media has been influential in addressing sanitation crises in Kenya and could be replicated in other parts of Africa.

4.3.2.2 Broadcast SMS Text Messages

Broadcast SMS text messages are also one of the indirect means of communication used in the La- Community to sensitise the habitat on the sanitation issues. For instance, an employee of Zoomlion-Ghana revealed that,

“in situations where the organisations wish or needs to reach out to a relatively larger number of inhabitants in an area, it utilises broadcast SMS text messages in partnership with some telecommunication network organisations such as Air-Tigo, MTN, Vodafone, as a means of providing strategic sanitation communication to the general public including the inhabitants of the La community”

This method is considered the most cost-effective means of communication by the organisation for reaching out to the general public including inhabitants of the La community.

4.3.2.3 Television and Radio Broadcasting

Since this strategy is done in the open, some of inhabitants included in study were aware of it and considered it as one of the major communication strategy used by Zoomlion in promoting better solid waste management and improved sanitation in the La community. As indicated in Table 4.2, about 16 percent of the inhabitants included in the study asserted that radio and television shows on sanitation is one of the obvious and effective sanitation strategy or tool used to communicate improved sanitation management messages in the La community. This is supported by the Zonal Operation Manager of Zoomlion-Ghana, who reveals that:

“The organisation uses television stations such as Ghana Television (GTV) and Obunu TV, as well as some radio stations including LATENU (which is a collaborative station of La, Teshie and Nungua) and Obunu FM; which all use the Ga language as the main

medium of communication just as the people of the La community to disseminate strategic sanitation communication messages to the inhabitants in the area. This enables Zoomlion-Ghana to communicate, sensitise and educate the inhabitants of the La community on its activities and operations”

However, it was established through field data that this strategy is rarely utilised by Zoomlion since is sometimes difficult to get due to the ease and cost effectiveness of other methods as already explained in this section (Ibid). This is because, sometimes officials of the Zoomlion cooperation with other stakeholders of the community at places such as football parks or lorry stations where projectors and giant screens are mounted to show movies and videos on the reality of the dangers of living in poor sanitation conditions, as a form of sensitisation.

4.4 Institutional Cooperation among Private Waste Management Agency (Zoomlion), the Government (LaDMA) and Other Relevant Stakeholders in Utilising Communication Tools and Strategies in Addressing the Sanitation Problems in the La Community

The task of addressing the sanitation crisis in Ghana is a very big one and cannot be single-handedly done by the activities or efforts of Zoomlion. There is therefore the need for networking, cooperation, collaboration and coordination between the Zoomlion and other major relevant stakeholders to address the menace in the La community especially through the utilisation of communication tools and strategies. The impact of the engagements and cooperation between Zoomlion-Ghana and relevant stakeholders in the community is to continue to put pressure on the Government, to influence decisions towards addressing the increasing phenomenon of poor sanitation in the country, with specific reference to the study area.

4.4.1 Cooperation between Zoomlion and the La Dade-Kotopon Municipal Assembly (LaDMA) in Using Communication as a Tool to Address the Sanitation Crisis in the La Community

The Municipal Assembly is the main government representative responsible for promoting development, as well as addressing any developmental challenges which confronts the Municipal including sanitation crisis. In relation to this the Municipal Planning Officer of LaDMA revealed through an interview that

“Zoomlion provides the technical men (who work with vans with sirens for the collection of solid waste in the area) whilst LADMA provides the government officials and experts (such as MPs, Municipal Chief Executive, Lecturers and sanitation management experts) who engage the inhabitants of the La community through strategic sanitation communication on the subject of addressing the sanitation crisis in the area. The organisation does this by utilising various communication tools or channels such as fliers, posters and banners, radio and television programmes on proper sanitation management”

For instance, the researcher had the opportunity to be a participant observer at this durbar that (see plate 4.1) was organised by LaDMA on July, 21, 2018, and chaired by the Hon. Gladys Mann-Dedey (Municipal Chief Executive) to address developmental issues in Kakramadu and the whole La community which was mainly centered on sanitation (solid waste management). , At the durbar, management and staff of Zoomlion-Ghana were invited to give a talk on the sanitation conditions in the area, the main causes of the poor status of sanitation in the area, the dire human security threats it poses to the inhabitants and remedies which could be taken to reverse and address the situation. This cooperation leads to advocacy, awareness creation,

sensitisation on how to address the sanitation crisis in the community by utilising communication as a strategic tool.

Plate 4.1: Field Images on a Seminar Organised by Zoomlion and LaDMA on Sanitation at Kakramadu in the La Community



Source: Field Work, 2018.

4.4.2 Cooperation between Zoomlion and the Traditional Council in Using Communication as a Tool to Address the Sanitation Crisis in the La Community

The La community is a typical Ga traditional area ruled by a chief. The chief is supported in his function by the Traditional Council including Heads of the various clans and Family lineages found in the La community, and some opinion leaders who help to support the chief in his function in various localities of the La community.

In an interview with a sub-chief of the Traditional Council, he revealed that

“no meaningful developmental agenda could be carried out in the La community without proper consultation and cooperation with the La Traditional Council. Therefore, Zoomlion in consultation with the various stakeholders of the Traditional Council disseminate viable strategic sanitation information for sanitation management to be

broadcasted to the inhabitants through their clans and family heads, as well as through radio stations such as OBUNU and LATENU”

4.4.3 Cooperation between Zoomlion and the Media in Using Communication as a Tool to Address the Sanitation Crisis in the La Community

Zoomlion engages the inhabitants of the La community through debates, discussions and dissemination of strategic sanitation information on two main radio stations (i.e. Obunu FM and LATENU FM) and the Obunu TV Station, as well as other television stations such as GTV on better ways of improving sanitation in the area. The statement below by a Radio Presenter at LATENU (see plate 4.2), support the above claim.

“I usually host a special Sanitation Programme every month, which I mostly invite resource personnel from Zoomlion, educational institutions and LaDMA to come share thought and ideas on the subject, as well as sensitise the inhabitants of the La community on how to address the sanitation crisis in the community”

Plate 4.2 Researcher in an Interview Session with a Presenter at LATENU Radio Station



Source: Field Work, 2018.

4.4.4 Cooperation between Zoomlion and other NGOs in Using Communication as a Strategic Tool to Address the Sanitation Crisis in the La community

Some Non-Governmental Organisations have also been involved in activities and programmes in addressing the drastic sanitation conditions in some parts of the La community. Examples of such NGOs include GLONA Healthcare & Vocational Academy and Concerned Health who work assiduously to promote improve sanitation in the La community. In a personal interview with the Executive Director of GLONA, he revealed that

“GLONA cooperates with Zoomlion in utilising communication tools and strategies such as social media, text messages, TV and radio programmes to provide technical capacity to develop quality, cost-effective, and focused models, services and programmes for addressing the poor sanitation conditions in some parts of the La community”

To support the above view of the Executive Director of GLONA, the Executive Director of Concerned Health also indicated that,

“Concerned Health works hand in hand with Zoomlion in using communication tools such as house-to-house campaigns, the Zoomlion vans with sirens, text messages and radio and television programmes to mobilize and provide strategic sanitation communication on the services and clean-up exercises to improve the sanitation conditions in the area” .

One key strength of such NGOs is that it works from multiple angles, advocating at the highest levels of policy-making within government while also working on the ground to demonstrate the impact of interventions that can be scaled-up to addressing the sanitation crisis in the community.

4.4.5 Cooperation between Zoomlion and Education and Religious Institutions in Using Communication as a Tool to Address the Sanitation Crisis in the La Community

Sanitation management is a holistic process which requires all stakeholders coming on board to tackle the menace. In an interview with the Zonal Planning Officer of Zoomlion-Ghana, he indicated that

“sometimes the organisation cooperates with some educational and religious institutions to organize floats, where they march through most parts of the La community to distribute fliers, posters and leaflets in providing strategic sanitation communication on the effects of poor sanitation and the way forward for addressing the situation crisis in the study area. Zoomlion also has Kids Foundation Club in schools in the area for the debates and quiz on improving sanitation in the La community”

In this vein, some schools and religious bodies in the La community collaborate with Zoomlion to embark on advocacy, education and sensitisation on effective sanitation management in the area through the information captured on banners, fliers and posters, as well as house-to-house campaigns and publicity on improved sanitation.

4.4.6 Cooperation between Zoomlion and Health Institution (The La General Hospital) in Using Communication as a Tool to Address the Sanitation Crisis in the La Community

The health status of a community and the well-being of its residents are highly dependent on the availability of access to quality and affordable water and better sanitation conditions. This can be achieved only when there is effective communication between stakeholders and inhabitants of an area. In view of this, Zoomlion collaborates with officials and health personnel of the La General

Hospital in providing vital sanitation management information to inhabitants who visit the hospital.

Data collected from an interview with the Medical Director of La General Hospital revealed that sanitation-induced disease cases have been on the ascendancy in the country, with specific reference to the La community in recent times. He said that,

“There are several banners and posters in the hospital sponsored by Zoomlion which convey strategic sanitation communication messages and information for effective sanitation practices and behaviour among inhabitants who visit the hospital”

In addition to the above, a nurse revealed through an interview that

“there are specially designed fliers and brochures sponsored by Zoomlion, which contain strategic sanitation communication messages, to be made available at the front desk of the Out Patient Department (OPD) and distributed to as many people who visit the hospital in a day”

Environment security in the La community due to improved sanitation conditions is an essential element which contributes to the health, productivity and welfare of the area. To achieve improved sanitation as a way of promoting environmental and health securities in the La community, Zoomlion collaborates with some health institutions, particularly, the La General Hospital. This collaboration includes liaison and cooperating to conduct investigations into environmental issues, particularly of sanitation concerns, educating the inhabitants of the La community on the proper treatment, storage, transportation and disposal of solid waste and promoting awareness to inhabitants through public health talks as way of ensuring compliance with sanitation impact assessment procedures. In addition to the above mentioned, the collaboration brings about recommendations to the authorities, stakeholders and inhabitants of

the La community for the protection of the environment through prescribing standards and guidelines related to the pollution caused by improper solid waste management as well as protecting and improving the quality of the environment and security, through control and prevention of improper waste management in the area.

4.5 The Most Effective Communication Tools and Strategies Utilised in Stimulating Positive Sanitation Attitudes in the La Community

Data was collected through questionnaires from the respondents to analyse which communication tool or strategy employed by Zoomlion is most effective in reforming the attitudes of the inhabitants of the La community with respect to improved sanitation practices.

(See Table 4.3)

Table 4.3: Effective Communication Tools/Strategies used by Zoomlion in Addressing Sanitation Crisis in the La Community

Communication Tool /Strategy	Frequency	Percentage (%)
Zoomlion refuse vans with siren	33	34
House-to-house publicity	19	20
Radio and Television Adverts and Programmes on Sanitation	15	16
Fliers, posters and banners	9	10
Social media	8	8
Text message	7	7
Community Seminars, Durbars and Festival Debate Programmes on sanitation	5	5
Total	96	100

Source: Researcher's Field Work, 2018.

From field data as observed from Table 4.3, the most effective communication tool or strategy which had greater influence in stimulating positive attitudes towards improved sanitation practices among the inhabitants of the La community is the use of Zoomlion refuse vans with sirens. Reasons given by respondents of the effectiveness of this communication tool or strategy was that it is used throughout the year on a daily basis and also has wider coverage area. This

results is supported by the Zonal Operation Manager of Zoomlion, who revealed in an interview that,

“The Zoomlion refuse vans with siren enable direct contact with inhabitants and also wide coverage areas since the refuse move from one place to another throughout the day in the La community”

The least most effective strategy or communication mechanism as confirmed by 5 percent of the respondents is the use of community seminars, durbars and festival debate programmes to deliver campaign messages on the need for improved sanitation practices in the area as observed in Table 4.3. Reasons given by respondents to the ineffectiveness of this strategy is that most inhabitants in the La community do not usually attend such programmes to get the messages of sanitation campaigns towards positive solid waste management in the area.

4.6 Effectiveness/Influence of Communication Tools and Strategies Utilised in Addressing Sanitation Crisis in the La Community

Data was also collected from the respondents to analyse the influence of communication tools or strategies employed by Zoomlion in engendering positive sanitation attitudes among the inhabitants of the La community with respect to improved sanitation practices. (Refer to Table 4.4).

Table 4.4: The Influence/Effectiveness of Communication Tools/Strategies used by Zoomlion in Addressing the Sanitation Crisis in the La Community

Influence of Communication Tools/Strategies	Frequency	Percentage (%)
Awareness creation through education, sensitisation and advocacy	40	33
Lobbying for effective legislation and policies towards addressing sanitation crisis in the La community	19	16
Creating loyalty through inter-personal relations between workers and officials of Zoomlion and the inhabitants of the La Community	30	25
Change of inhabitants' attitudes and behaviour towards positive sanitation practices and management	20	17
Assist in capacity building towards addressing the sanitation crisis in the La Community	11	9
Total	120	100

Source: Researcher's Field Work, 2018.

From Table 4.4, the greatest influence of the communication tools and strategies utilised particularly by Zoomlion in addressing the sanitation crisis in the La community is awareness creation through education, sensitisation and advocacy as confirmed by majority (33 percent) of the respondents. However, the least influence of communication tools and strategies as confirmed by the minority (9 percent) of the respondents from Table 4.4, in addressing the sanitation crisis in the La community is influencing decision making towards effective sanitation management policies and measures in the area.

The major influence of communication tools and strategies utilised in addressing the sanitation crisis in the La community are elaborated below. These include awareness creation through education, sensitisation and advocacy, lobbying for effective legislation and policies towards addressing sanitation crisis in the La community, creating loyalty through inter-personal relations between workers and officials of Zoomlion and the inhabitants of the La community, change of inhabitants' attitudes and behaviour towards positive sanitation practices and management, influences decision making towards effective sanitation management policies and measures in

the La community and assist in capacity building towards addressing the sanitation crisis in the La community.

4.6.1 Awareness Creation through Education, Sensitisation and Advocacy

The phenomenon of poor sanitation in Ghana cannot be effectively prevented if the citizens are ignorant of the health security implications of such crisis. As a result, one of the main ways by which the Zoomlion in cooperation with other stakeholders have made efforts towards addressing sanitation crisis in the La community is by utilising its communications tools and strategies such as social media, text messages, Zoomlion vans with sirens, among others to engage the inhabitants of the La community on critical sanitation issues relating particularly to proper solid waste management. This is done to conscientise the inhabitants of the La community on the environmental and health ramifications of poor sanitation in the area and the urgent need to adhere to positive sanitation practices towards addressing the crisis. From Table 4.4, majority (33 percent) of the inhabitants of the La community express that awareness creation through education, sensitisation and advocacy is the greatest influence of communication tools and strategies in addressing the sanitation crisis in the La community. This is supported by the Zonal Operations Director who revealed in an interview that:

“Zoomlion cannot effectively create awareness of the drastic situation of poor sanitation in Ghana and the need to urgently tackle it if the organisation lacks credible or vital information about the reality of the crisis in the country. Towards this end, the Zoomlion-Ghana cooperates with the Government of Ghana and other state institutions, as well as NGOs and international organisations to conduct field data researches on the changing

patterns and dynamics, as well as the dire Human security implications of sanitation crisis in persons in the country”

Findings from such researches are then published on the organisation’s website or codified into small pamphlets and then disseminated to the general public including the La community. In other instances, Zoomlion also engages in public campaigns, open fora and radio and television discussion to make know the severity of the threats posed by the phenomenon of poor sanitation in Ghana and the need to take urgent measures in preventing or eliminating it. Also, these researches help the organisation to obtain data or statistics, as ways to strategize to know how best to sensitise the citizens (including the inhabitants of the La community) to be in the solution process or mechanism. Therefore, the cooperation between Zoomlion and other relevant stakeholders in utilising effective communication tools and strategies in the La community is geared towards advocacy, awareness creation, sensitisation and influence on policy direction on how to address the sanitation crisis in the area.

4.6.2 Lobbying for Effective Legislation and Policies towards Addressing Sanitation Crisis in the La Community

Lobbying for legislation and policies for addressing the sanitation crisis in the La community is a way of drawing the attention of decision makers from all levels of Government and the community on the poor state of sanitation conditions in the area and the need to factor measures to effectively address the crisis in policy frameworks and laws. As observed from Table 4.4, 16 percent of respondents included in the study indicated that the communication tools and strategies particularly by Zoomlion and other relevant stakeholders leads to lobbying for effective legislation and policies towards addressing sanitation crisis in the La community.

The Zonal Operations Director revealed in a personal interview that

“the organisation sometimes pursued a political agenda through engagements with some government officials and some caucus of the Ghanaian Parliament to enact and legislate laws and policies which are geared towards addressing the drastic sanitation crisis in some parts of the country, including the La community”

This political agenda by Zoomlion contributed significantly in lobbying for policies and legislation across Accra, which subsequently led to the adoption of the first Saturday of every month as a ‘National Sanitation Day’ in Ghana. Zoomlion-Ghana was able to achieve this objective by convincing representatives in the parliament to support bills geared toward addressing sanitation crisis in Ghana. This was done through visitations, emails, letters and telephone calls to representatives of Parliament and other government officials. The National Sanitation Day is also observed in the La community which induce most inhabitants to partner with Zoomlion and other stakeholders in maintaining improved sanitation conditions.

4.6.3 Creating Loyalty through Inter-personal Relations between Workers and Officials of Zoomlion and the Inhabitants of the La Community

Some of the communication tools and strategies such as house-to-house campaigns adopted by Zoomlion are mostly direct which connotes that the intended recipients are reached and thus results are achieved. Therefore, from Table 4.4, 25 percent of the respondents indicated that the influence of communication tools and strategies utilised in addressing the sanitation crisis in the La community is that it creates loyalty through inter-personal relations between workers and officials of Zoomlion and the inhabitants of the La Community.

Consequently, both the inhabitants of the La community and the organisation develop a sense of belonging and duty to the vision and mission of the organisation and are therefore committed at any time to give off their best towards seeing to the realization of the goals of the organisation, with special reference to positive sanitation behaviour and practices. Also, some of the communications tools and methods adopted by Zoomlion such as house-to house campaigns, sharing of fliers and brochures, among others, in reaching out to the general public of the La community allows for feedback. This allows for clarification of nuances and intricacies with regards to certain formed perceptions, understandings and bahviour in relation to sanitation practices in the La community. The communication tools also allow for calculation or effective monitoring and evaluation of every activity, programme, service and operation carried out by Zoomlion in the La community to help reform and transform the inhabitants of the La community towards positive sanitation attitudes and behaviour.

The communication tools and strategies employed by Zoomlion in the sanitation management enables the organisation stay committed to its vision and mission especially in the La community. In relation to this, the Zonal Operations Director that stated in an interview that,

“the utilisation of communication tools or strategies have built loyalty and commitment between the organisation and the general public with specific reference to the inhabitants of the La community. The direct communication tools especially adopted by the organisation connote that the intended recipients are reached and thus results are achieved”

In this vein, there is the absence of middlemen who may not rightly or effectively engage the intended target or stakeholders to ensure promoting better understanding, perceptions and behavioural practices with regards to addressing the sanitation condition in the La community.

4.6.4 Change of Inhabitants' Attitudes and Behaviour towards Positive Sanitation Practices and Management

Generally, it can be deduced from field data that, the communication tools and strategies utilised by the waste management organisation (Zoomlion) turned out to be effective to some extent in influencing positive sanitation attitudes and behaviour among inhabitants of the La community. This was evident when both inhabitants of the La community as well as Resourced Personnel interviewed for the study expressed a positive assertion with regards to the effectiveness of communication tools in their various communities. From Table 4.4, 17 percent of inhabitants of the La community included in the study revealed that the communication tools and strategies utilised by Zoomlion has led to Change of inhabitants' attitudes and behaviour towards positive sanitation practices and management. Respondents indicated that the communication tools and strategies have aroused an interest in them to help in communal labor, keep their community clean at all times and not depend or wait on the government for any assistance but rather they should come together as a unit to solve their own sanitation problems. Other reasons include the need for the people in the community to set a day aside for communal activities. Last but not the least, some of the respondents capped it all by concluding that, since "*Cleanliness is often said to be next to godliness,*" if you are Ghanaian including inhabitants of the La community, then there is a need for you to practice good sanitation practices and attitudes with respect to solid waste management.

The use of communication strategies and tools by Zoomlion in addressing the sanitation crisis in the La community has helped individuals and groups come together to coordinate activities to achieve goals crucial for socialization, decision-making, problem-solving and management

process on sanitation issues. This is because, it has led to supporting the vision and mission of Zoomlion in the community towards promoting improved sanitation. This has garnered weekly and monthly community clean-up exercises in various areas in the La community (Interview, the Greater Accra Regional Communication Manager of Zoomlion, 2018).

The Zonal Operations Manager of Zoomlion indicated through an interview that

“since the inhabitants of the La community generate waste, then there is a need for them to manage these wastes and one way of doing this is to gather all sachet rubber and sell them to recycle companies”

To support this, the Greater Accra Regional Communication Manager of Zoomlion revealed that

“the communication tools employed by the organisation has yielded effective results over the years, in terms of changing attitudes and behaviours towards improve sanitation in the La community. This is because the effectiveness of communication and level of engagements or cooperation between Zoomlion and relevant stakeholders in the La community in sanitation management in the area has caused continuous pressure on the inhabitants to be more committed towards the cause of addressing the appalling menace of poor sanitation in the study area”

The ultimate aim of Zoomlion utilising communication strategies and tools in sanitation management in the La community is to stimulate positive change of behaviour among the citizens and organisations with respect to hygiene and sanitation, and also ensuring the inculcation of this awareness into practice.

Communication tools and strategies employed by Zoomlion in the sanitation management in the La community endeavor to raise awareness levels, point out the importance of adopting hygiene and improved sanitation behaviours, influence attitudes and beliefs at the household and

community level in support of adopting improved sanitation measures as well as promoting practices such as avoiding improper throwing of refuse at unauthorized places. This validates claims by Shields & Ruehle (2016) that the use of effective communication tools and strategies could be used to influence the behaviours of citizens towards positive attitudes or behaviour towards improved sanitation in a country. This is also supported by Gambrill (2016), that effective sanitation management through the use of communication necessitate engagement with all relevant stakeholders to sensitise and transform attitudes of citizens both rich and poor, formal and informal to achieve a universal approach. The above assertions by the participants gives the implication and indication that, as a result of the good communication strategies adopted by the waste management organisations, they have a developed a good understanding and behaviour towards improved sanitation activities in the La community.

4.6.5 Assist in Capacity Building towards Addressing the Sanitation Crisis in the La Community

Zoomlion-Ghana has been involved in creating the necessary national and local engagements with citizens (including the inhabitants of the La community) and recruiting and training some of them to aid in capacity building toward providing sanitation services and addressing sanitation crisis in the country. From Table 4.4, 9 percent of inhabitants indicate that the influence of communication tools and strategies adopted especially by Zoomlion in the La Community has assisted in capacity building towards addressing the sanitation crisis in the area. The Greater Accra Regional Communication Manager of Zoomlion revealed that

“Zoomlion-Ghana sometimes organised special seminars, conferences and training workshops for volunteers who are committed to championing the agenda of addressing the sanitation challenges in Ghana including the La community”

Zoomlion’s way of building capacity in Ghana towards the addressing sanitation in the country, had resulted in the sharing of expertise ideas, teaming up together to organize campaigns, workshop and educational seminars on the topic of sanitation crisis especially in the La community.

4.7 Challenges in Addressing the Sanitation Crisis in the La Community

Although Zoomlion has cooperated with relevant stakeholder in utilising communication as a strategy for addressing the sanitation crisis in the La community, there are certain factors which bedevil the efforts of the Private Waste Management Agency to fully achieve its goals and vision in the area. These challenges include poverty/economic hardship, expertise personnel constraints, poor collaboration sometimes between Zoomlion and some relevant stakeholders due to unnecessary competition and politics, negative sanitation practices and behaviour and corruption. Table 4.5 presents data obtained from inhabitants on the major challenges confronting the effective utilisation of communication tools and strategies in addressing the communication crises in the La community.

Table 4.5: Challenges Confronting Zoomlion and Government in Addressing the Sanitation Crisis in the La Community

Influence of Communication Tools/Strategies	Frequency	Percentage (%)
Poverty/Economic Hardship	30	25
Expertise Personnel Constraints	12	10
Poor collaboration sometimes between Zoomlion and some relevant stakeholders due to unnecessary competition and politics	8	6
Negative Sanitation Practices and Behaviour	50	42
Corruption	20	17
Total	120	100

Source: Researcher's Field Work, 2018.

4.7.1 Poverty, Economic Hardship & Financial Constraints

Inability to pay for services of waste management agencies due to lack of money to do so has been identified as one of the contributing factors which causes people to dispose off solid waste or refuse at unauthorized places in the La community. From Table 4.5, 25 percent of the respondents indicated that poverty is one of the main challenges confronting stakeholders including Zoomlion and the Government in addressing the poor sanitation crises in the La community. The statement below from the Greater Accra Regional Communication Manager of Zoomlion explains this:

“notwithstanding the significant role played by Zoomlion in cooperation with the Government and other relevant stakeholders in the La community, to completely and effectively address the sanitation crisis in the area, severe poverty and economic hardship continue to be a developmental challenge which confronts such efforts”

The Zonal Operations Director of Zoomlion through an interview also indicated that

“financial constraints have crippled the capacity and capability of Zoomlion and the Government in providing more refuse bins in the area, as well as recruiting more

workers to engage in effective waste management strategies and approaches for addressing the sanitation crisis in the La community”

Though unauthorized disposal of refuse is unpleasant, most people are still willing to take the risk to dispose refuse in the open space since they are unable to pay for the services of waste management agencies such as Zoomlion. This supports the assertion by scholars such as Tacoli (2012) who assert that poverty is a contributing factor to poor sanitation practices and management across the globe.

In addition to the above, there is financial constraints on the part of relevant stakeholders and institutions, particularly Zoomlion to organize or engage in stakeholder consultations, roundtable conferences, as well as engagement with inhabitants sometimes through communication tools and strategies such as posters, banners, distribution of fliers and brochures, TV and Radio shows, among other. Thus, without strong financial base, initiatives by Zoomlion and the government in addressing the poor sanitation in the La community becomes futile. Consequently, Zoomlion is sometimes not able to meet its objectives of effectively addressing sanitation challenges in the La community due to financial constraints.

4.7.2 Expertise Personnel Constraints

Sanitation management through the utilisation of effective communication strategies and tools requires a large number of trained sanitation personnel due to the nature and changing pattern of some sanitation crisis. However, evidence from field data in Table 4.5, 10 percent of respondents revealed that both Zoomlion and the Government are confronted with the challenge of expertise personnel who could utilise communication strategies and tools as effective sanitation management mechanism in addressing the sanitation crisis in the La community.

To support the above, the LaDMA Municipal Information Officer in an interview revealed that

“both Zoomlion and the Government are confronted with the challenge of expertise personnel who could utilise communication strategies and tools as effective sanitation management mechanism in addressing the sanitation crisis in the La community”

This means that both Government and Zoomlion are faced with the challenge of insufficient expertise personnel who could plan the content of information to disseminate, the expected target group to receive information, the appropriate communication channels to use, how to decipher and utilise feedbacks which could be obtained from information disseminated to propose viable and pragmatic solutions. This supports the views of Bryson (2018) that experts are required in utilising communication as a strategic tool for sanitation management to achieve results.

4.7.3 Poor Collaboration sometimes between Zoomlion and some Relevant Stakeholders

Due to Unnecessary Competition and Politics

Addressing sanitation crisis in the La community requires effective collaboration between Zoomlion and the relevant stakeholders including the Traditional Council, media, education and health institutions, NGOs, the Government and even the inhabitants of the community. However, field data from Table 4.5 revealed that 6 percent of the respondents included in the study believe that, there are times that inhabitants and other relevant stakeholders such as the Traditional Council, media, NGOs, among others, in the La community are unwilling to cooperate effectively with Zoomlion and the government in their efforts in utilising communication tools and strategies in addressing the sanitation crisis in the area. To support this, the Zonal Operations of Zoomlion in an interview revealed that,

“parochial interests due to unnecessary competition and politics sometimes poses great challenge to effective cooperation between Zoomlion and other stakeholders in ensuring the effective utilisation of communication strategies and tools to achieve effective sanitation management in the La community”

This is because some of these stakeholders are misconstrued to believing that adhering to communication strategies or tools utilise by Zoomlion in the sanitation management in the area may benefit the Waste Management agency and a specific political party economically, at the expense of the inhabitants. As such, most inhabitants and other relevant stakeholders such as the Traditional Council, media, NGOs feel reluctant to cooperate with Zoomlion and the government to take full of the use of communication tools and strategies in sanitation management in the area. This militates against the efforts of Zoomlion realizing the full potential of utilising communication as an effective strategy for waste management in the La community.

4.7.4 Negative Sanitation Practices and Behaviour

Notwithstanding the efforts of Zoomlion and the government in adopting communication strategies and tools for effective sanitation management in the La community, data from Table 4.5 revealed that majority (42 percent) of the respondents believed that there are some inhabitants who have just decided to be adamant and uncivilized, and still resort to improper means of solid waste disposal such as dumping refuse at unauthorized places. In an interview with a Sub-chief of the Traditional Council, he pointed out that,

“it is appalling to know that some inhabitants still would never want to do or adhere to what is right and continue in their negative sanitation practices and behaviour. This has been a major challenge to effective sanitation management in the La community”

To support assertion by the Sub-chief, a Representative of LA MAASAAMOR KPEE (a Community Based Organization in the La community), indicated in an interview that

“there is difficulty in identifying culprits of poor sanitation practices since such people mostly carry out their clandestine moves of improper solid waste disposal at unauthorized places, during late evenings or early dawns when most people are asleep to notice them and caution or sanction them”

Therefore, the inability to identify culprits or defaulters of improved sanitation practices to sanction in order to serve as a deterrent to others, coupled with the bad habit of solid waste disposal by some inhabitants has become a great snag in effectively addressing the sanitation crisis in the La community, especially through the use of communication.

4.7.5 Corruption

Data from Table 4.5, revealed that 17 percent of the respondents believed that corruption has become a snag militating against the efforts of Zoomlion in addressing sanitation issues in the study area. In an interview with the Chief Executive, GLONA (an NGO in the La community), explains further with the following statements:

“some officials of the government embezzle funds which are supposed to be used in providing adequate refuse bins throughout the La community. Therefore, the limited refuse bins in the La community encourages some inhabitants to resort to improper solid waste disposal usually at unauthorized places”

4.8 Conclusion

Generally, the implications of poor sanitation in La community affect the well-being of the inhabitants. Consequently, Zoomlion a Private Waste Management Agency cooperates with Government and other relevant stakeholders in utilising communication tools and strategies such as social media, Zoomlion vans with sirens, TV and Radio shows on sanitation issues, among others, in tackling the drastic sanitation situations in the La community. Paramount among the influence of communication tools in addressing the poor sanitation in the La community include awareness creation, lobbying for effective legislation and policies, assisting in capacity building and development of to effectively address the poor sanitation conditions in the area. Notwithstanding some success achieved in the use of communication tools and strategies in addressing the sanitation crises in the La community, a number of challenges confront the major stakeholders including Zoomlion in the realization of improved sanitation condition in the areas. These challenges include, poverty/economic hardship, expertise personnel constraints, poor collaboration sometimes between Zoomlion and some relevant stakeholders due to unnecessary competition and politics, negative sanitation practices and behaviour and corruption.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

Though sanitation crisis abounds across the globe and Ghana, the scope of this study limits itself to the use of communication tools by Zoomlion in addressing the sanitation crisis in the La community of LADMA, in the Greater Accra Region of Ghana. Towards this end, the main objective of the study was to analyse the effective use of communication tools and strategies by Zoomlion towards influencing people's attitudes and behaviour with respect to improved sanitation practices in the area. More specifically the study investigated the direct and indirect communication tools and strategies employed by Zoomlion in addressing the sanitation crisis in the La community, examine how Zoomlion cooperates with other relevant stakeholders in utilising communication as a strategy for addressing the sanitation problems in the La Community, assess the effectiveness and influence of communication tools on people's attitudes and behaviour with respect to improved sanitation practice and finally examine the challenges in addressing the sanitation crisis in the La community.

5.2 Summary of Major Research Findings

The following are summaries of the major findings based on the research questions asked.

- ❖ The study revealed that Zoomlion in cooperation with other relevant stakeholders adopts both direct and indirect communication tools as strategic means of addressing the sanitation crises in the La community. The direct communication tools are geared towards influencing positive sanitation practices at the household or individual levels,

whereas the indirect communication tools focus essentially on influencing positive sanitation practices and behaviour at the community level.

- ❖ The study showed that the direct communication tools as utilised by Zoomlion in addressing the sanitation crisis in the La community include direct mails and emails, telephone calls letters and on-the-ground publicity or advertisement through the use of sirens from its vehicles or by personnel of Zoomlion sharing fliers, pasting posters and also hanging banners siren refuse vans and community seminars, durbars and festival debate programmes on sanitation to communicate the agenda of the organisation to individuals and households in the La community towards ensuring and promoting improved sanitation conditions.
- ❖ The study also showed that the indirect communication tools as utilised by Zoomlion to address the sanitation crisis in the La community include social media, broadcast SMS text messages, television and radio discussions as strategies of influencing positive sanitation management and attitudes among the inhabitants of the La community.
- ❖ The study also unearthed that the most effective communication strategy or tool utilised by Zoomlion for effective sanitation management in the La community is the Zoomlion vans with sirens on top. This is considered most effective because it the only communication strategy or tool utilised on a daily basis and regularly throughout the year and has wide coverage area. This helps Zoomlion to reinforce and re-echo their mission and vision with regards to effective sanitation management in the area to enable various stakeholders including the Governments and inhabitants support their agenda. However, the least considered effective strategy or tool as confirmed from field data is community seminars and durbars and festival debate programmes on sanitation. This is because it is

occasionally and not regular and only few inhabitants in the area patronize such programmes.

- ❖ The study also showed that to achieve the objectives of addressing the sanitation challenges in the La community through the use of effective communication tools and strategies, Zoomlion-Ghana cooperates with other relevant stakeholders in the community including the Government (LADMA), the Media (i.e. Radio and TV stations), NGOs (like GLONA and Concerned Health) the La Traditional Council, some religious, educational and health institutions within the area. The cooperation between Zoomlion and the above identified stakeholders has led to some achievements in addressing the sanitation crisis in the La community, but more needs to be done as the crisis continues to persist in the community. This is because it has provided effective institutional, social economic, cultural and political conditions for addressing sanitation issues that relate to the La community through the utilisation of communication tools and strategies.
- ❖ The study also showed that the effectiveness of the communication tools and strategies by Zoomlion in the sanitation management in the La community covers five broad areas which are awareness creation through education, sensitisation and advocacy, lobbying for effective legislation and policies towards addressing sanitation crisis in the La community, creating loyalty through inter-personal relations between workers and officials of Zoomlion and the inhabitants of the La community, change of inhabitants' attitudes and behaviour towards positive sanitation practices and management and assist in capacity building towards addressing the sanitation crisis in the La community.

- ❖ The study showed that there are challenges which bedevil both Zoomlion and the Government in effectively addressing the sanitation crisis in the La community, as well as the other parts of the country. These challenges include poverty or economic hardships, financial constraints on the parts of agencies and institutions responsible for addressing sanitation issues, expertise personnel constraints, poor collaboration sometimes between Zoomlion and some relevant stakeholders due to unnecessary competition and politics, negative sanitation practices and behaviour by some inhabitants amidst efforts of Zoomlion and Government, difficulty in sometimes identifying culprits of poor sanitation practices and behaviour to sanction and corruption.

5.3 Contribution of the Study to Theory, Policy Making and Practice

5.3.1 Contribution to Theory

- ❖ This study contributes to theory by revealing how the theory of Strategic Sanitation Communication could be utilised in explaining the impact of communication as a strategic tool in addressing sanitation crisis from the perspective of a private organisation's perspective, with specific reference to Zoomlion-Ghana. It appears to be the first study to have utilised the theory of Strategic Sanitation Communication to show the relational order that could be maintained by Private Waste Management agencies to ensure effective synergy between communication tools and addressing sanitation crises anywhere across the globe. The theoretical application of this study is very essential because it helps in understanding the threats, efforts and challenges of addressing sanitation crisis in Ghana through the reliance on communication tools as a strategic method.

5.3.2 Implications to Research, Practice and Policy

- ❖ This study facilitates better insight and understanding of the urban sanitation conditions in Ghana with specific reference to the La community (a suburb of the LADMA) Most studies on addressing sanitation crisis in Africa and Ghana, in particular, have given little or no attention to the use of communication tools as a strategic method when dealing with the topic from the perspective of local Private Waste Management organisation.
- ❖ This study also offers a number of practical implications for international and local NGOs, as well as government institutions in charge of promoting development in Ghana. The implications include: (1) organisations who wish to implement policies towards addressing the challenges of poor sanitation could rely on recommendations from this study.

5.4 Conclusions

It is concluded from the study that Zoomlion plays a significant role in cooperation with the Government and other relevant stakeholder organisation in addressing sanitation crisis in the La community. The study also concludes that the utilisation and adoption of effective communication tools and strategies could help in addressing the increasing menace of sanitation crisis in the La community and other parts of the country. There are great prospects for Zoomlion if the organisation could take full advantage of communication as an effective strategy for tackling sanitation crisis as identified in this study. This could help the organisation meet its vision and mission to promote its global reputation or image in terms of efforts at promoting development for the citizens of the state, with reference to effectively tackling of sanitation crisis. Based on findings from the study, it is concluded that to be able to totally or completely eradicate or deal with filth in Ghana and for that matter the La community, there should be the

effective and efficient collaborative efforts of all stakeholders including the government, international bodies, non-governmental organisations, private agencies and community-based organisations responsible for effective waste management and implementation of improved sanitation policies and measures, as well as educating citizens to shun away from some negative habits and attitudes such as throwing refuse at unauthorized places. The study finally concludes that there is a significant relationship between communication tools and people's behaviour with respects to sanitation practices in the La community. This is due to the fact that evidence from the study revealed how effective communication tools and strategies utilised especially by Zoomlion has influence in shaping the behaviour of the people of the La community towards improved sanitation practices and management.

5.5 Recommendations

Based on findings from this study, the following key recommendations are proposed:

- ❖ There should be more recruitment and training of competent staff and management in terms of skills and qualifications in government institutions charged with maintaining and promoting improved sanitation conditions in the country. This will ensure effective, efficient and viable policies are formulated and implemented and defaulters sanction accordingly when they violate such policies.
- ❖ More educational programmes should be carried out in the La community to create awareness to the inhabitants about the menace of poor sanitation conditions both on environmental and human life.

- ❖ More so, government should ensure that its institutions for promoting improved sanitation across the country are adequately financed since it a major challenge faced by such institutions in providing quality service delivery.
- ❖ The government should also liaise with Zoomlion to provide adequate refuse bins throughout the Municipal. The Government, Zoomlion and the authorities of the La should ensure that refuse facilities are not farther away from the easy reach of the inhabitants in the La community, otherwise the same old situation will continue to exit and even worsen where inhabitants will resort to disposing solid waste at unauthorized places.
- ❖ Further researches should also be carried out on the sanitation situation in the Municipal and the La community in particular. This will enable policy makers, non-governmental organisations, community-based organisations and the government to use the outcomes of such researches as planning tools to know the changing trends of the causes, effects and suitable solutions for solving the sanitation problems in the district.
- ❖ There should also be effective partnership between Government and private companies such as Zoomlion which can finance and supervise operations better to ensure effective and quality service provisions in waste management, particularly, in the La community, and the country at large.

REFERENCES

- Aarons, G. A., Hurlburt, M., & Horwitz, S. M. (2011). Advancing a conceptual model of evidence-based practice implementation in public service sectors. *Administration and Policy in Mental Health and Mental Health Services Research*, 38(1), 4-23.
- Abdulai, M. (2011). Causes and effects of indiscriminate waste disposal: The case of Tema metropolis (Doctoral dissertation, University of Cape Coast). Retrieved at erl.ucc.edu.gh on March 30, 2018.
- Adhikarya, R. (20 May 2016). "A Personal Tribute to Everett Rogers". *Media Asia*. 31 (3): 123–126. Available at doi:10.1080/01296612.2004.11726745.
- Adubofour, K., Obiri-Danso, K., & Quansah, C. (2013). Sanitation survey of two urban slum Muslim communities in the Kumasi metropolis, Ghana. *Environment and Urbanization*, 25(1), 189-207.
- Austin, E. W., & Pinkleton, B. E. (2006). *Strategic public relations management: Planning and managing effective communication programs* (2nd ed). London: Lawrence Erlbaum Associates.
- Azuliya, D. (2017). Sanitation in Ghana: What Government Must Do. *Modern Ghana News*. Retrieved at <https://www.modernghana.com/news/765905/sanitation-in-ghana-what-government-must-do.html> on April 5, 2018.
- Baran, S., & Davis, D. (2011). *Mass communication theory: Foundations, ferment, and future*. Nelson Education. Retrieved from pdfs.semanticscholar.org on December 10, 2017.
- Bartram, J., & Cairncross, S. (2010). Hygiene, sanitation, and water: forgotten foundations of health. *PLoS medicine*, 7(11), e1000367.
- Bigas, H. (2012). The global water crisis: Addressing an urgent security issue. *United Nations University-Institute for Water, Environment and Health*.
- Box, F. N. (2010). Improving sanitation in Ghana-role of sanitary biogas plants. *Journal of Engineering and Applied Sciences*, 5(2), 125-133.
- Bryson, J. M. (2018). *Strategic planning for public and nonprofit organisations: A guide to strengthening and sustaining organisational achievement*. US; John Wiley & Sons.
- Burkle Jr, F. M., Martone, G., & Greenough, P. G. (2013). The changing face of humanitarian crises. *Brown J. World Aff.*, 20, 19.
- Coombs, W. T. (2007). Protecting organisation reputations during a crisis: The development and application of situational crisis communication theory. *Corporate reputation review*, 10(3), 163-176.

- Coombs, W. T. (2015). *Ongoing crisis communication: Planning, managing, and responding* (4th ed.). Los Angeles, CA: Sage.
- Dainton, M., & Zelle, E. D. (2017). *Applying communication theory for professional life: A practical introduction*. New Delhi: Sage publications.
- Daramola, O., (2012). Clapping with one hand: the case of urban environmental sanitation practices in Nigeria. *Journal of Applied Technology in Environmental Sanitation*,2(4), 233.
- Dixson, M. D. (2012). Creating effective student engagement in online courses: What do students find engaging? *Journal of the Scholarship of Teaching and Learning*, 10(2), 1-13.
- Frimpong, J. A. (2013). *Housing and Household Characteristics and Payment for Solid Waste Disposal in The Greater Accra Region, Ghana* (Doctoral dissertation, University of Ghana). Available at ugspace.ug.edu.gh.
- Gambrill, M. (2016). Addressing the urban sanitation crisis: Time for a radical shift. The World Bank, IBRD-IDA. Available at <http://blogs.worldbank.org/water/addressing-urban-sanitation-crisis-time-radical-shift>.
- Gawande, A., & Lloyd, J. B. (2010). *The checklist manifesto: How to get things right* (Vol. 200). New York: Metropolitan Books.
- Ghana's Millennium Development Goals (MDGs) 2015 Report. (2015). The National Development Planning Commission (NDPC) / United Nations Development Programme. (UNDP). Retrieved from www.gh.undp.org/.../ghana/en/.../2015-ghana-millennium-development-goals-report on May, 30, 2018.
- Jamias, J.F. 1975. *Readings in Development Communication*. Laguna, Philippines: Department of Development Communication, College of Agriculture, UPLB.
- Kandlousi, N. S. A. E., Ali, A. J., & Abdollahi, A. (2010). Organisational citizenship behaviour in concern of communication satisfaction: The role of the formal and informal communication. *International Journal of Business and Management*, 5(10), 51.
- Kay, N. (2013). *Mobilising Youth: A study of school learner mobility in Claremont, Cape Town* (Doctoral dissertation, University of Cape Town).
- Kumar, S., Kumar, N., & Vivekadhish, S. (2016). Millennium development goals (MDGs) to sustainable development goals (SDGs): Addressing unfinished agenda and strengthening sustainable development and partnership. *Indian Journal of Community Medicine*
- LADMA (2013): *Medium Term Development Plan (MTDP) 2013 – 2017*.
- Littlejohn, S. W., & Foss, K. A. (2010). *Theories of human communication*. Waveland press.

- Lofranco, L. L. (2009). *The Meaning of Development for Filipinos by Filipinos in Diaspora: Rhetorical Vision in Participatory Communication* (Doctoral dissertation), University of North Dakota.
- Lydecker, M., & Drechsel, P. (2010). Urban agriculture and sanitation services in Accra, Ghana: the overlooked contribution. *International Journal of Agricultural Sustainability*, 8(1-2), 94-103.
- Manyozo, L. (2012). *Media, communication and development: Three approaches*. New Delhi: Sage Publications India.
- Mara, D., Lane, J., Scott, B., & Trouba, D. (2010). Sanitation and health. *PLoS medicine*, 7(11), e1000363.
- McPhail, T. L. (2010). *Global communication: Theories, stakeholders, and trends*. New York: John Wiley & Sons.
- Mehrabian, A. (2017). *Nonverbal communication*. London: Routledge.
- Miezah, K., Obiri-Danso, K., Kádár, Z., Fei-Baffoe, B., & Mensah, M. Y. (2015). Municipal solid waste characterization and quantification as a measure towards effective waste management in Ghana. *Waste Management*, 46, 15-27.
- Monney, I., Buamah, R., Odai, S. N., Awuah, E., & Nyenje, P. M. (2013). Evaluating access to potable water and basic sanitation in Ghana's largest urban slum community: Old Fadama, Accra. *Journal of Environment and Earth Science*, 3(11), 72-79.
- Obradovich, M. L., Schebesch, S. W., Pirtle, J. D., & Crain, T. C. (2012). U.S. Patent No. 8,126,960. Washington, DC: U.S. Patent and Trademark Office.
- Osumanu, K. I. (2010). Urban water and sanitation in Ghana: How local action is making a difference. Available at <http://waterfund.go.ke/toolkit/Downloads/8.%20Urban%20WSS%20in%20Ghana.pdf>.
- Owusu, G. (2010). Social effects of poor sanitation and waste management on poor urban communities: a neighborhood-specific study of Sabon Zongo, Accra. *Journal of Urbanism*, 3(2), 145-160.
- Owusu, G. (2010). *Urban Development Trends in Ghana and Accra*. Institute of Statistical, Social and Economic Research (ISSER) University of Ghana, Legon.
- Quebral, N. C. (1973). What do we mean by development communication? *International Development Review*, 15(2), 25-28.
- Quebral, N. C. (2011). DevCom Los Banos Style. Lecture delivered during the Honorary Doctorate Celebration Seminar, LSE, University of London, December 2011.

- Ross, N. K. (2005). Sample design for educational survey research. Quantitative research methods in educational planning. Retrieved from www2.tf.jcu.cz/~bauman/KPD_VTMP_KVTMP/Educational_Research.pdf.
- Rovai, A. P., Baker, J. D., & Ponton, M. K. (2013). Social science research design and statistics: A practitioner's guide to research methods and IBM SPSS. Watertree Press LLC.
- Sakaran, U., & Bougie, R. (2010). Research methods for business: A skill building approach (5th ed). UK: John Wiley & Sons.
- Shatri, S., Raval, P. M. & Mapuskar (2010). Review of sustainable wastewater treatment: options for urban sanitation facilities in developing countries, case study: Upper Bhima, India. *Journal of Applied Science in Environmental Sanitation*.
- Shields, B., & Ruehle, E. (2016). The Sanitation Crisis and Social Media: Sanergy in Kenya. *Management Sloan School*. Available at https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=employing+communication+tools+in+addressing++global+snaitation+crisis+-+2015&btnG=
- Slideshare. (2012, November 5). Retrieved from Primary & secondary data: <http://www.slideshare.net/hezel3210/primary-secondary-data>.
- Tacoli, C. (2012). Urbanization, gender and urban poverty: paid work and unpaid care work in the city. Urbanization, Energy and Population Issues. Working Paper 7. Human Settlements Group IIED, London.
- Tong, A., Sainsbury, P., & Craig, J. (2007). Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*, 19(6), 349.
- Tongco, M. D. C. (2007). Purposive sampling as a tool for informant selection. *Ethnobotany Research and applications*, 5, 147-158.
- UNICEF. (2015). Basic Sanitation. Retrieved from [https://www.unicef.org/ghana/REALLY_SIMPLE_STATS_-_Issue_3\(1\).pdf](https://www.unicef.org/ghana/REALLY_SIMPLE_STATS_-_Issue_3(1).pdf).
- Van Riel, C. B., & Fombrun, C. J. (2007). Essentials of corporate communication: Implementing practices for effective reputation management. Routledge.
- WHO. (2017). Global Key Facts. Available at <http://www.who.int/news-room/fact-sheets/detail/sanitation>.
- World Health Organisation. (2015). Progress on sanitation and drinking water: 2015 update and MDG assessment. World Health Organisation.

World Health Organisation. (2017). Progress on sanitation and drinking water: 2015 update and MDG assessment. World Health Organisation. Available at <https://www.who.int/.../2017/launch-version-report-jmp-water-sanitation-hygiene.pdf>.

World Internet Statistics. (2018). Usage and Population Statistics. Available at <https://www.internetworldstats.com/>.

Zoomlion. (2019). About Zoomlion. Available at www.zoomlion.com.

APPENDIX I

QUESTIONNAIRE

**INSTITUTE OF SOCIAL, STATISTICAL AND ECONOMIC RESEARCH
(ISSER)
UNIVERSITY OF GHANA.**

**QUESTIONNAIRE FORM FOR AN MA ACADEMIC DISSERTATION/ RESEARCH
ON THE USE OF COMMUNICATION IN ADDRESSING SANITATION PROBLEMS:
A STUDY OF ZOOMLION ACTIVITIES IN THE LA COMMUNITY IN LADMA**

The purpose of this questionnaire form is to obtain your opinion and views about sanitation problems in the La area. This is solely for an academic research as a further requirement for an POST-graduate degree certification. Responses to the following questions will be treated with high confidentiality and solely for the purpose of the research. Responses should also be anonymous as much as possible.

PERSONAL DATA

1. **Gender** 1. Male 2. Female
2. **Age** 1. 10-15yrs 2. 16-30yrs 3. 31-50yrs 4. Above 50yrs
3. **Level of education completed** 1. Professional 2. JHS 3. SHS 4. Tertiary 5. None
4. **Marital Status** 1. Single 2. Married 3. Widowed
5. **What is your occupation?**
6. **Place of residence**
 1. La Wireless 2. La Apaapa 3. La Main Township 4. La Trade Fair 5. La Palm Wine
 6. Kakramadu

COMMUNICATION STRATEGIES & TOOLS

1. **Has there been any community sensitisation programme on sanitation in this area?**

1. Yes 2. No (*skip to Ques 10*)

2. **If yes to Ques 1, who organised it? (multiple responses)** 1. LaDMA 2. Health Institution 3. Zoomlion 4. NGO/CBO 5. Don't know 6. Other (specify)
3. Do you attend community sensitisation programme on sanitation in this area?

1. Yes 2. No (*Skip to Ques 10*)

4. **What are some of the communication methods used to educate you on sanitation issues? (Multiple responses)** 1. Zoomlion refuse van with siren 2. House-to-house publicity 3. Fliers, posters and banners 4. Social media 4. Other (specify) ...

5. **Which of these methods in order of ranking is most effective according to you? (where 1 is the most effective and 8 the least effective)**

1. Zoomlion refuse van with siren 2. House-to-house publicity 3. Fliers, posters and banners 4. Social media

Other (specify)

6. **Based on your responses in Ques 5, why do you say your first 3 are the most effective methods?.....**
.....
.....

7. **How has these communication methods influenced your behaviour with regards to sanitation in the area?** 1. Awareness Creation through Education, Sensitisation and Advocacy 2. Lobbying for effective legislation and policies towards addressing sanitation crisis in the La community 3. Creating Loyalty through Inter-Personal Relations between Workers and Officials of Zoomlion and the Inhabitants of the La Community 4. Change of Inhabitants' Attitudes and Behaviour Towards Positive Sanitation Practices and Management 5. Assist in capacity building towards addressing the sanitation crisis in the La Community. 6. Other (specify).....

8. **Which waste management companies is your household aware to be operating in this area?**

.....
.....
.....

9. How did you get to know of these waste management companies in this area?

.....
.....
.....

10. What services are provided by these waste management companies in this area?

.....
.....
.....

11. How did you get to know of such services provided by the waste management companies in this area?.....
.....
.....

12. Which particular service will you say has really helped in addressing the sanitation issues in this area?.....
.....
.....

CHALLENGES

1. What do think is the major challenge of addressing the sanitation crisis in the La community?

1. Poverty/Economic Hardship 2. Expertise Personnel Constraints 3. Poor collaboration sometimes between Zoomlion and some relevant stakeholders due to unnecessary

- competition and politics 4. Negative Sanitation Practices and Behaviour 5. Corruption
6. Other (specify).....

RECOMMENDATIONS

- 1. What communication methods would you recommend that you think can help rescue the poor sanitation condition in your area?**

.....
.....

Thank you so much for your time and co-operation. I hope this information will provide a useful and reliable source of data to help me carry out my research successfully. I am highly grateful for your contribution.

APPENDIX II

UNSTRUCTURED INTERVIEW GUIDE FOR KEY INFORMANTS

TOPIC: THE USE OF COMMUNICATION IN ADDRESSING SANITATION

**PROBLEMS: A STUDY OF ZOOMLION ACTIVITIES IN THE LA COMMUNITY IN
LADMA.**

The purpose of these questions is to obtain your opinion and views about the use of communication in addressing sanitation problems: a study of Zoomlion activities in the La community in LaDMA. This is solely for an academic research purpose as a further requirement for a Post-graduate MA degree certification. Responses to the following questions will be treated with high confidentiality and solely for the purpose of the research only.

1. Can you please tell me your current position and how long you have been serving or working with this institution?
2. How does your institute communicate with residents in addressing the sanitation issues in the La community?
3. How do the communication methods your institution use in addressing the sanitation issues among residents in the La community consider gender dimensions?
4. Who adheres more to the communication methods you use in addressing the sanitation issues among residents in the La community?
5. How effective have these communication methods been in influencing the understanding, perception and sanitation behaviour of the residents of the La community?
6. What communication methods does your institution use when you have to collaborate with other institutions in addressing the sanitation issues in the La community?
7. Based on your response in the previous question, how effective have these communication methods been in addressing the sanitation issues in the La community?
8. What arrangements has your institution made with regards to addressing the sanitation issues in the La community and how did you get to know?
9. Are you aware of any institutional arrangements with regards to addressing the sanitation issues in the La community and how did you get to know?
10. What has been the collaboration or inter-play or level of participation among the various institutions in this municipal in addressing the sanitation issues in the La community and what role has communication played in this? **(Including the community, the local authority e.g. chief)**
11. With regards to the communication methods used, what do you think have been the impact of institutional collaboration or cooperation in addressing sanitation issues in the La community?
12. What do you think have been the impact your institution have made in addressing sanitation issues in the La community?
13. Aside using communication methods in addressing the sanitation issues in the La community, what other methods or strategies are being used by your institution?

14. What communication challenges does your institution face in addressing the sanitation challenges in the La community?
15. How could the communication challenges facing your institution in addressing the sanitation issues in La be prevented or managed?
16. What do you recommend as the way-forward, with regards to addressing sanitation issues in the La community through communication?

Thank you so much for your time and co-operation. I hope this information will provide a useful and reliable source of data to help me carry out my research successfully. I am highly grateful for your contribution.

APPENDIX III**KEY INFORMANT INTERVIEWS FOR QUALITATIVE DATA**

NAME OF ORGANISATION	POSITION	TYPE OF ORGANISATION
1. LA DADEKOTOPON MUNICIPAL ASSEMBLY	MUNICIPAL INFORMATION OFFICER	GOVERNMENT
2. LA DADEKOTOPON MUNICIPAL ASSEMBLY	MUNICIPAL ENVIRONMENTAL HEALTH OFFICER	GOVERNMENT
3. LA DADEKOTOPON MUNICIPAL ASSEMBLY	MUNICIPAL PLANNING OFFICER	GOVERNMENT
4. LATENU RADIO STATION	REPORTER & PRESENTER OF SANITATION PROGRAMMES	MEDIA
5. GLONA HEALTHCARE & VOCATIONAL ACADEMY	EXECUTIVE DIRECTOR	NON-GOVERNMENTAL ORGANISATION (NGO)
6. CONCERNED HEALTH	CHIEF EXECUTIVE OFFICER	NON-GOVERNMENTAL ORGANISATION (NGO)
7. LA MAASAAMOR KPEE	PROGRAMMES MANAGER	COMMUNITY BASED ORGANISATION (CBO)
8. ZOOMLION	ZONAL OPERATIONS DIRECTOR	WASTE MANAGEMENT COMPANY
9. ZOOMLION	GREATER ACCRA REGIONAL COMMUNICATION MANAGER OF ZOOMLION	WASTE MANAGEMENT COMPANY
10. LA TRADITIONAL COUNCIL	SUB-CHIEFS	TRADITIONAL AUTHORITY
11. EDUCATIONAL AND RELIGIOUS INSTITUTIONS	TEACHER, RELIGIOUS LEADER	GOVERNMENTAL & NON-GOVERNMENTAL (NGO)
12. HEALTH INSTITUTION (LA GENERAL HOSPITAL)	1 DOCTOR & 1 NURSE	GOVERNMENT

AREAS FOR QUANTITATIVE DATA (QUESTIONNAIRE DISTRIBUTION)

NAME OF COMMUNITY	QUANTITY INTERVIEWED
1. APAAPA	20
2. WIRELESS	20
3. PLAM WINE	20
4. LA MAAMI	20
5. TRADE FAIR	20
6. KAKRAMADU	20
TOTAL	120