

WATER ACCESSIBILITY AT HOUSEHOLD LEVELS IN CHILILABOMBWE  
DISTRICT: A CASE STUDY OF FITOBAULA SETTLEMENT

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A thesis submitted in partial fulfilment of the requirements for the degree of Master of  
Integrated Water Resources Management

The University of Zambia

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## **Declaration**

I hereby declare that this thesis is my own work and effort and that it has not been submitted at any University for an award.

Signature.....

**Emmanuel Sachikumba**

Dated this 29<sup>th</sup> day of October, 2014.

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## Certificate of Approval Form

This dissertation by is approved as a partial fulfilment of the requirements for the award of the degree of Master of Science in Integrated Water Resources Management at the University of Zambia.

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## **Abstract**

Zambia is endowed with a great variety of natural resources. For instance, Zambia has good climate with a favourable rainfall pattern; this provides sufficient recharge for the surface and ground water resources. In spite of the sufficient surface and ground water resources, accessibility to water at household levels is problematic both in quality and quantity.

Fitobaula settlement, the study area, is located in Chililabombwe district of the Copperbelt province of Zambia. The study examined water accessibility as well as water quality at household level. The research looked at the sources of water for the households and considered the complications of accessibility to water and the available opportunities therein. The investigation involved fifty households and the data was collected by the use of questionnaires (to assess accessibility) and laboratory tests (for ascertaining water quality). In addition to this, government departments such as the health, agriculture, forestry and education as well as the municipal council were interviewed on the topic under study. The study was descriptive in nature where clustered sampling procedures were used to come up with the households which were to participate in the study, while the simple random methods were deployed as a sampling technique to select respondents.

The key findings were that; accessibility to water household levels is still a challenge in the settlement as most of the water point sources (shallow wells, the stream and the river) were found to be contaminated. In addition to this, it was found that there was no direct relationship between the economic performance of a household and the accessibility to water. The study also observed that there were opportunities among the people in the settlement as they were increasingly getting into the education system and adult literacy was being encouraged in the settlement. Furthermore, the settlement has groundwater resources which indicate that water can be provided to the residents using boreholes.

Though access to drinking water at the household level in peri-urban areas is problematic, exploitation of ground water with suitable technologies can be of significant importance.

## **Dedication**

This work is dedicated to my wife Zonobia, our daughters, Khe-khe and Kweseka, who endured my long absence from them during the preparation of this work. Furthermore, I would like to remember my predecessors, my mother Agness Aruberuto Samuzuza and Grandmother Luziya Kabanda Mujinga, who laid a proper foundation for my academics at a time when no one believed, may your souls rest in peace.

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## Table of Contents

Title.....	i
Declaration.....	ii
Copyright.....	iii
Certificate of Approval.....	iv
Abstract.....	v
Dedication.....	vi
Acknowledgement .....	vii
List of Symbols.....	xvi
List of Acronyms .....	xvii
<b><i>Chapter One</i></b>	
1.0 Introduction.....	1
1.1 Problem Statement .....	4
1.2 Aim .....	4
1.3 Objectives.....	5
1.3.1 General Objective.....	5
1.3.2 Specific Objectives.....	5
1.5 Rationale of the Study.....	5
1.6 Location of the study Area.....	6
1.7 Scope of the Study.....	6
1.8 Study Limitations and Strengths.....	7
<b><i>Chapter Two</i></b>	
2.0 Literature Review .....	9
2.1 Water Situation Global Overview.....	9
2.2 The Struggle for Water.....	13
2.3 Regional Perspective.....	15
2.4 The Zambian Perspective.....	16

2.5 Geological Situational Analysis.....	18
2.6 Natural Concentrations of Trace Elements.....	20
2.6.1 Pedogenic Processes.....	20
2.6.2 Trace Element Toxicity .....	21
2.7 Hydrological Cycle.....	21
2.7.1 Water Quality .....	24
2.7.2 Water Test Parameters: Microbial Test.....	25
2.8 A Settlement: Definitions.....	25
2.8.1 Physical Characteristics of a Settlement.....	27
2.8.2 Social Characteristics of a Settlement .....	27
2.8.3 Legal Characteristics of a Settlement .....	27
<b>Chapter Three</b>	
3.0 Research Methodology.....	28
3.1 Research Design.....	28
3.2 Target Population.....	30
3.3 Sample Size.....	31
3.4 Sampling Techniques.....	31
3.5 Data collection.....	32
3.6 Research Instruments .....	33
3.7 Data Analysis .....	34
3.8 Ethical considerations .....	34
<b>Chapter Four</b>	
4.0 Findings of the Research.....	36
4.1 Part A: Attributes of the Selected Sample .....	36
4.1.1 Sex of Respondents.....	36
4.1.2 Marital Status of Respondents.....	37
4.1.3 Education Status.....	39

4.1.4 Highest Education level per Household .....	40
4.1.5 Livelihood Activities per Household.....	41
4.1.6 Duration of Stay in the Settlement .....	43
4.1.7 Number of People per Household.....	44
4.2 Part B: Water Analysis at Household Level .....	44
4.2.1 Water Collection for Household.....	45
4.2.2 Quality of Water: A Household View.....	47
4.2.3 Preparation of Water.....	48
4.2.4 Water Accessibility Challenges.....	49
4.2.5 Causes of Water Interruptions.....	49
4.2.6 Alternative Sources of Water.....	50
4.2.7 Distance to Alternative Sources of Water .....	51
4.2.8 Quality of Water.....	51
4.2.9 Complaints on the Quality of Water .....	52
4.3 Part C: Water Related Diseases.....	53
4.3.1 Water Shortages and Girls/Women Social Economic.....	54
4.3.2 Effects of Water Interruptions on School Children .....	54
4.3.4 Water Contamination.....	55
4.3.5 Perceived Causes of Water Pollution.....	56
4.3.6 Community Attitude towards Water Pollution .....	57
4.3.7 Summary.....	58

## ***Chapter Five***

5.0 Discussion of the Research Findings .....	60
5.1 Specific Objectives .....	60
5.2 Discussion of the Findings based on the First Specific Objective.....	60
5.2.1 Sex of Distribution.....	60
5.2.2 Major Sources of Household Water .....	62

5.2.3 Quality of Water Accessed .....	62
5.2.4 Household Water Purification Methods.....	66
5.2.5 Payments towards Water.....	67
5.2.6 Alternative Sources of Water.....	68
5.2.7 Distance to Alternative Sources of Water.....	69
5.2.8 Water Interruption Causes.....	70
5.2.9 Ground Water Pollution: Personal Views.....	71
5.3 Discussion Based on the Second Objective .....	72
5.3.1 Employment Situation.....	72
5.3.2 Problems of Unclean Drinking Water.....	73
5.3.3 Effects of Water Interruptions on Girl Child.....	75
5.3.4 Effects of Water Interruptions on Women.....	76
5.3.5 Water Interruptions and Sanitation .....	78
5.4 Discussion of the Findings based on the Third Specific Objective .....	79
5.4.1 Opportunities for Household Water.....	79
<b>Chapter Six</b>	
6.0 Conclusion and Recommendations.....	82
6.1 Conclusion .....	82
6.2 Recommendations.....	84
6.2.1 Recommendations from Respondents.....	84
6.2.2 Researchers' Recommendations.....	85
References .....	87
Appendix 1: Community Questionnaire.....	92
Appendix 2: Municipal Council office .....	97
Appendix 3: Health office Questionnaire.....	99

## List of figures

Figure 1 SADC map.....	1
Figure 2 Location of Chililabombwe District.....	3
Figure 3 Location of Fitobaula Settlement.....	6
Figure 4 Global Population: Improved water source .....	9
Figure 5 Commitment per Capita 2010.....	12
Figure 6 Women Drawing Water.....	17
Figure 7 Hydrological cycle, Natural Conditions.....	22
Figure 8 Hydrological cycle, Water Levels.....	22
Figure 9 Hydrological cycle, Ground water Quality.....	23
Figure 10 Hydrological cycle, Environmental Effects .....	23
Figure 11 Sex of Respondents.....	36
Figure 12 Marital Status of Respondents.....	38
Figure 13 Number of People in School.....	40
Figure 14 Education levels.....	41
Figure 15 Types of Employment.....	42
Figure 16 Years Respondents have stayed in the Settlement.....	43
Figure 17 Source of Water.....	45
Figure 18 Water Collection.....	46
Figure 19 MDG on Water Outlook .....	74
Figure 20 A Woman and children Drawing Water.....	77

## **List of Tables**

Table 1: Sex of the Respondents.....	37
Table 2: Marital Status of Respondents.....	38
Table 3: Number of People per Household.....	39
Table 4: The Types of Employment for the Respondents.....	42
Table 5: The Years Respondents have stayed in the Settlement.....	43
Table 6: Sources of Water for the Households.....	44
Table 7: Water Collection per Household.....	46
Table 8: The Household View of the Cleanliness of Water.....	47
Table 9: How the Water is made Clean for Drinking.....	48
Table 10: Are there times when the source of water is dry.....	49
Table 11: The Causes of Water Interruptions.....	49
Table 12: The Alternative Source of Water.....	50
Table 13: Distance to the Alternative Source of Water.....	51
Table 14: The Challenges of Unclean Water in the Households.....	52
Table 15: The Water Quality Complaints.....	53
Table 16: The Diseases have Occurred in the Household.....	53
Table 17: The Effects of Water Shortage and Women/Girls.....	54
Table 18: The Effects of Water Interruptions on School going Children.....	55
Table 19: The Number of People understand the word Water Pollution.....	56
Table 20: The Perceived Causes of Water Pollution.....	57

Table 21: Attitude towards Prevention of Water Pollution.....	58
Table 22: Recommendations of Respondents.....	83

## List of Symbols

C	- Carbon	O	- Oxygen
Ca	- Calcium	P	- Phosphorous
Co	- Cobalt	S	- Sulphur
Cl	- Chlorine	Se	- Selenium
Cr	- Chromium	Si	- Silicon
Fe	- Iron	V	- Vanadium
H	- Hydrogen	Zn	- Zinc
I	- Iodine		
K	- Potassium		
Mg	- Magnesium		
Mn	- Manganese		
Mo	- Molybdenum		
N	- Nitrogen		
Na	- Sodium		
Ni	- Nickel		
Mg	- Magnesium		

## **List of Acronyms**

CSO	- Central Statistics Office
DFID	- Department for International Development
DRC	- Democratic Republic of Congo
ECZ	- Environmental Council of Zambia
ECZ	- Electoral Commission of Zambia
GRZ	- Government of the Republic of Zambia
GWP	- Global Water Partnership
IPCC	- International Panel on Climate Change
IWRM	- Integrated Water Resources Management
JMP	- WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation
KAPs	- Knowledge, Attitude and Practices
MEWD	- Ministry of Energy and Water Development
MLGH	- Ministry of Local Government and Housing
NGOs	- Non-Governmental Organizations
NWASCO	- National Water Supply and Sanitation Council
OECD	- Organisation for Economic Co-operation and Development
SNDP	- Sixth National Development Plan
UN	- United Nations
UNICEF	- United Nations Children's Fund
UNZA	- University of Zambia
UNW-DPCP	- United Nations-Water Decade Programme on Capacity Development

- WASH - Water, Sanitation and Hygiene
- WB - World Bank
- WE - Water Efficiency
- WHO - World Health Organization
- ZBS - Zambia Bureau of Standards
- ZMD - Zambia Metrological Department
- ZWP - Zambia Water Partnership