

ASSESSING THE EFFECTS OF URBANIZATION ON THE ENVIRONMENT

A CASE STUDY OF MAKINDYE DIVISION

KAMPALA UGANDA

BY

EREJOBBO SAMUEL

BU/UP/2018/3338

**A RESEARCH REPORT SUBMITTED IN PARTIAL FULLFILMENT OF THE
REQUIREMENT FOR THE AWARD OF A DEGREE IN BACHELORS OF SCIENCE
IN NATURAL RESOURCE ECONOMICS OF BUSITEMA UNIVERSITY**

MAY

2022

DECLARATION

I EREJOBBO SAMUEL hereby declare that this research report has solely been from my own efforts and findings. I therefore affirm that it has never been submitted for an award of a degree or any other academic qualification in any university or academic institution.

SIGNATURE.....

DATE.....06/05/2022.....

EREJOBBO SAMUEL

BU/UP/2018/3338

APPROVAL

This is to certify that this research report titled “Assessing the effects of urbanization on the environment a case study of Makindye division Kampala Uganda” is the original work for Erejobo Samuel. It has been done under my supervision and it is ready to be submitted to the Faculty of Natural Resources and Environmental Sciences Busitema University

SIGNATURE.....DATE.....

NYANGOMA IMMELDAH

SUPERVISOR

DEDICATION

I dedicate this report to my parents Mr. Dramadri Moses Gad and MsAlaru Jennifer, my uncle Mr. Alitama Francis who have always been there for me providing me with any assistance needed throughout my educational journey not forgetting my siblings Pomuzika Adrian, NakupendaLino Divine, Abadrileba Joshua, Asianzu Michael and Opiiru Immaculate, all my lecturers for their endless efforts to teach me not forgetting my friends and classmates like Omairo Charles, Abeja Ambrose, Amidia Paul, Lwanga Derrick Kanyesigye Edwin, Mangeni Nelson, Kabandize Eliphaz not forgetting my roommate Ngobi Henry and my best friend Ninshaba Agatha for all their support they have given me through this journey.

ACKNOWLEDGEMENT

Firstly I want to extend my sincere gratitude to the almighty God who has blessed me with the gift of life, knowledge and courage to go through my research besides all the hardships.

Secondly, I want to appreciate the support my family has always been giving me in different ways like financial assistance, guidance, courage and advice despite their constrained income and resources. They have always supported me despite their different hardships and financial constraints faced especially my dad Mr. Dramadri Moses Gad, my mum MsAlaru Jennifer and my uncle Mr. Alitama Francis .

I also extend my appreciation to my academic staff from Busitema University-Namasagali Campus for their countless efforts and work done persistently to ensure that I am equipped with the required knowledge and skills required for the proper natural resource and environmental management and ensuring that this field attachment is done.

Finally I appreciate the company of my fellow colleagues who have been guiding me while doing the research who include: Omaiwo Charles, Abeja Ambrose, Amidia Paul, Ngobi Henry, Kanyunyuzi Jane, Mark Cedric, Ninshaba Agatha, Kabandize Eliphaz and many others. Their spirit of togetherness and team work has enabled me complete this task successfully.

TABLE OF CONTENTS

DECLARATION.....	i
APPROVAL.....	ii
DEDICATION.....	iii
ACKNOWLEDGEMENT.....	iv
TABLE OF CONTENTS.....	v
LIST OF FIGURES.....	viii
LIST OF TABLES.....	ix
ACRONYMS AND ABBREVIATIONS.....	x
ABSTRACT.....	xi
CHAPTER ONE: GENERAL INTRODUCTION.....	1
1.1 Introduction and background to the study.....	1
1.2 Statement of the problem.....	3
1.3 Objectives of the study.....	3
1.3.1 General/major objective of the study.....	3
1.3.2 Specific objectives of the study.....	3
1.4 Research questions.....	3
1.5 Scope of the study.....	4
1.6 Conceptual framework.....	4
1.7 Justification of the study.....	6
CHAPTER TWO: LITERATURE REVIEW.....	7
2.1 Urbanization.....	7
2.1.1 Definition.....	7
2.1.2 History of urbanization.....	7
2.1.3 Theories of urbanization.....	8
2.1.4 Urbanization trends in developing countries.....	10
2.2 Causes of urbanization.....	12
2.3 Effects of urbanization on the environment.....	14
2.4 Possible solutions and interventions to the effects of urbanization on the environment.....	15
CHAPTER THREE: MATERIALS AND METHODS.....	17

3.1 Study area	17
3.1.1 Location	17
3.1.2 Demographics.....	18
3.1.3 Climate.....	18
3.1.4 Geology.....	18
3.1.5 Vegetation.....	18
3.1.6 Topography.....	18
3.2 Research design	19
3.3 Target population, sample size and sampling procedure	19
3.3.1 Target population	19
3.3.2 Sample size	19
3.3.3 Sampling techniques and procedure.....	20
3.4 Data types and collection methods	21
3.4.1 Data types	21
3.4.2 Data collection methods.....	21
3.5 Validity and reliability of data collection instruments.....	22
3.6 Data analysis	22
3.7 Ethical considerations	22
3.8 Limitations and delimitations of the study	23
CHAPTER FOUR: FINDINGS	24
4.1 Socioeconomic characteristics of the respondents.....	24
4.1.1 Gender of the respondents.....	24
4.1.2 Age of respondents.....	24
4.1.3 Education level of respondents.....	25
4.1.4 Marital status of the respondents.....	26
4.1.5 Occupation of the respondents	26
4.1.6 Time spent in the area by the respondents.....	27
4.1.7 Family size of the respondents	28
4.2 Causes of urbanization	28
4.2.1 Major activities carried out in the area.....	28
4.2.2 Knowledge about urbanization.....	29
4.2.3 Indicators of development in the area.....	29

4.2.4 Factors that led to development in the area	30
4.3 Effects of urbanization on the environment	31
4.3.1 Knowledge about environmental changes	31
4.3.2 Environmental changes	32
4.3.3 Knowledge about the effects of urbanization on the environment	32
4.3.4 Effects of development on the environment	33
4.4 Possible solutions and interventions to the impacts of urbanization on environment.	33
4.4.1 Knowledge about the policies put in place by the government	33
4.4.2 Policies and interventions put in place by the government	34
4.4.3 Knowledge about whether the policies are followed by the people	34
4.4.4 Reasons why the policies put in place by the government are not followed	34
4.4.5 Effective measures	35
CHAPTER FIVE: DISCUSSION	37
CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS	42
6.1 Conclusions	42
6.2 Recommendations	43
6.3 Areas of future research	44
REFERENCES	45
APPENDICES	48
Appendix 1: Research questionnaire	48
Appendix 2: Photos of the study area	51

LIST OF TABLES

Table 1: Environmental changes that have occurred in the area.....	32
Table 2: Policies put in place by the government.....	34
Table 3: Effective measures suggested for managing the environment from the effects of urbanization ..	35

LIST OF FIGURES

Figure 1: Conceptual framework of the study	5
Figure 2: A figure illustrating the levels of urbanization in the different countries over many years	11
Figure 3: A map showing the study area	17
Figure 4: A bar graph showing the gender of the respondents	24
Figure 5: A bar graph showing the age of the respondents.....	25
Figure 6: A bar graph showing the education level of the respondents	25
Figure 7: A pie chart showing the marital status of the respondents	26
Figure 8: A bar graph showing the occupation of the respondents.....	27
Figure 9: A bar graph showing the time of stay in the area by the respondents	27
Figure 10: A pie chart showing the family size of the respondents	28
Figure 11: A bar graph showing the major activities carried out in the area	29
Figure 12: A pie chart showing the indicators of development in the area	30
Figure 13: A bar graph showing the factors that led to the development of the area.....	31
Figure 14: A pie chart showing the effects of development on the environment.....	33
Figure 15: Arena mall, a recent development in Nsambya railways	51
Figure 16: Mestil hotel, a recent development in Nsambya central.....	52
Figure 17: A site of the construction of the new Kampala fly over road in Nsambya railways.....	52
Figure 18: Solid waste dumping site at Nsambya Police Barracks.....	52

ACRONYMS AND ABBREVIATIONS

EIA:	Environmental Impact Assessment
FAO:	Food and Agriculture Organization
GOU:	Government of Uganda
KCCA:	Kampala Capital City Authority
MoFPED:	Ministry of Finance Planning and Economic Development
NEMA:	National Environmental Management Authority
NGO:	Non Government Organization
UBOS:	Uganda Bureau of Statistics

ABSTRACT

This study was carried out to identify the effects of urbanization on the environment in Kampala district taking Makindye division as a case study. It mainly focused on the effects of urbanization on land resources. The study used both primary and secondary data which was collected through four data collection methods that is: questionnaire, interview, observation and documentary analysis. Both probability and non probability sampling techniques were used to come up with the sample of 68 respondents. Excel 2010 and SPSS were used to analyze the data that was collected. The results about the causes of urbanization in the area indicated that the major cause or factor leading to development of the area was infrastructural development. The results about the effects of urbanization on the environment indicated that the major effect of urbanization on the environment in the area was the increased solid waste problem. The results about the possible solutions in addressing the effects of urbanization on the environment indicated that the major policies put in place to manage the environment from the effects of urbanization were garbage collection and monitoring and the major measures that were suggested by the respondents were planting trees and garbage collection. It was concluded that more still needs to be done to protect the environment of Kampala from the increasing effects of urbanization. This could be through improved solid waste management practices, proper urban planning, planting trees along various points in the area and intensifying the carrying out of Environmental Impact Assessment for the different development projects before they are carried out. This would enable the achievement of sustainable development where we are able to obtain development while at the same time protecting the environment from being harmed by the developments. Thus ensuring that people in urban areas are able to enjoy the benefits of urbanization or development in the form of increased employment opportunities, improved service delivery, improved standards of living as well as putting the urban space to efficient use while at the same time be able to obtain the services provided by the environment such as climate regulation and water purification among others.

CHAPTER ONE: GENERAL INTRODUCTION

1.1 Introduction and background to the study

The degradation of the environment caused by urbanization is an issue of growing concern worldwide, particularly in developing countries like Uganda.

Urbanization refers to the general increase in population and the amount of industrialization of a settlement. It includes an increase in the number and extent of cities. It symbolizes the movement of people from rural to urban areas. Urbanization happens because of the increase in the extent and density of urban areas. (Uttara, Bhuvandas, & Aggarwal, 2012)

Urbanization is a global trend and has largely been a positive force for economic growth, poverty reduction, and human development. Urbanization is understood as a population shift from rural to urban areas; it is the gradual increase in the proportion of people living in urban areas and the ways in which each society adapts to the change. It is predominantly the process by which towns and cities are formed and become larger as more people begin living and working in urban areas (GOU, 2017)

The National Library of Medicine defines urbanization as "the population shift from rural areas to urban areas, the decrease in the proportion of people living in rural areas, and how each society adapts to this change". Urbanization is also looked at as a process by which towns and cities are formed. Cities are important drivers of development and poverty reduction in both urban and rural areas because they are places where entrepreneurship, technological innovation, and other economic activity can flourish (United-Nations, 2014)

Urbanization has generally been a positive force for economic growth, poverty reduction, and human development and yet urban areas are places where entrepreneurship and technological innovation can thrive. Urban areas also serve as hubs for the development, where the proximity of commerce, government and transportation provide the infrastructure necessary for sharing knowledge and information" (UnitedNations, 2018).

Uganda is currently experiencing rapid urbanization estimated at 20% and by 2050 will be among the most urbanized countries in Africa (GOU, 2017). In Uganda, urbanization has been

REFERENCES

1. Algilanan, D., & Connor, R. (2003). Attitudes to Service Quality: The Expectation Gap. *Nutrition and Food Science* , 165-173.
2. Awumbisa, M. (2014). *Linkages between Urbanization Rural–Urban Migration and Poverty Outcomes in Africa*. Geneva: International Organization for Migration.
3. Barofsky, J., Siba, E., & Grabinsky, J. (2016). *Can Rapid Urbanization in Africa Reduce Poverty? Causes, Opportunities, and Policy Recommendations*. Washington DC: Brookings Institution.
4. Bodo. (2015). *Rapid urbanisation problems and coping strategies in Port Harcourt metropolis, Rivers State, Nigeria. Master's thesis*. Choba, Rivers State.: University of Port Harcourt.
5. Bodo, T. (2019). Rapid Urbanisation: Theories, Causes, Consequences and Coping Strategies. *Annals of Geographical Studies* , 32-45.
6. Bodo, T., & David, L. (2018). The petroleum exploitation and pollution in Ogoni, Rivers State, Nigeria: the community perspective. *European Scientific Journal* . , 197-212.
7. Boshoff~ C. & Gray, B. (2004). The Relationship between Service Quality, Customer Satisfaction and Buying Intentions in the Private Hospital Industry'. *South African, Journal of Business Management* , 27-37.
8. BruceHugman. (2009). *Healthcare Communication*. London; Pharmaceutical Press.
9. Byamugisha, A. (2017). *impacts of urbanisation on water resource in Kampala*. Kampala: Kampala International University.
10. Caress, A. (2003). *Giving information to patients*. Nursing Standard.
11. Chapman, & Kimberly, B. (2009). Improving Communication among Nurses, Patients, and Physicians. *American Journal of Nursing* , 21-25.

12. Cohen, B. (2004). Urban Growth in Developing Countries: A Review of Current Trends and a Caution Regarding Existing Forecasts. *World Development* , 23-51.
13. Corbridge, S., & Jones, G. (2005). *Urban Bias: The continuing Debate Paper prepared for DFID*. DFID.
14. Dixon, J., & McMichael, P. (2016). Revisiting the urban bias and its relationship to food security. *Health of People, Place and Planet* , 313-317.
15. Fox, S. (2014). Urbanization as a Global Historical Process Theory and Evidence from Sub-Saharan Africa. *Population and Development Review* , 285-310.
16. Giddens, A. (2006). *The dynamics of regional development* . Cambridge: Polity Press.
17. Gilbert, M., Benard, B., Paul, I., Joshua, W., Sophie, K., Cotilda, N., et al. (2018). Assessing the Extent of Historical, Current, and future land use systems in Uganda. *Land* 2018, 7, 132 , 1-17.
18. GOU. (2017). *The Uganda National Urban Policy*. Kampala: MLHUD.
19. Kyle, F. (2017). *The Rapid Urban Growth Triad: A New Conceptual Framework for Examining the Urban Transition in Developing Countries*. Stockholm: KTH Royal Institute of Technology.
20. Lo, & Marcotullio. (2001). *"Globalization and the Sustainability of Cities in the Asia Pacific region"*. United Nations University Press.
21. McCatty, M. (2004). *The Process of Rural-Urban migration in developing countries*. Ottawa, Ontario: Carleton University .
22. MoFPED. (2016). *The Second National Development Plan (NDPII) 2015/16 – 2019/20*. Kampala: National Planning Authority (NPA).
23. Najjuko, S. (2017). *The Impact Of Urbanization On Health Service Delivery In Kyengeru Town Council, Wakiso District Uganda (1986-2017)*. Wakiso: Kampala International University.

24. Namara, H. (2011). *Impacts of urbanization on the agricultural landuse*. Uganda, Kampala: University Of Agder.
25. NEMA. (2013). *NEMA news vol 19*. The urban management programme, world Bank.
26. Soja, E., & Kanai, M. (2007). *The Urbanization of the World*", In: R. Burdett and D. Sudjic(eds.). Phaidon, London: The Endless City.
27. UBOS. (2014). *National Census 2014*. Kampala: UBOS.
28. UNDESA. (2014). *World Urbanization Prospects: 2014 Revision*. New York: United Nations Department of Social and Economic Affairs.
29. UN-Habitat. (2010). *State of African Cities*. Nairobi: UN-Habitat.
30. United Nation. (2017). *Economic Report on Africa 2017: Urbanization and Industrialization for Africa's Transformation*. Addis Ababa, Ethiopia: Economic Commission for Africa.
31. United-Nations. (2014). *Revision of the World Urbanization Prospects*. New York: United Nations.
32. United Nations. (2018). *World Urbanization Prospects*. New York: United Nations.
33. Uttara, S., Bhuvandas, N., & Aggarwal, V. (2012). Impacts of urbanization on environment. *International Journal of Research in Engineering & Applied Sciences*, 2 (2), 1-9.
34. Wikicon. (2021, 11 27). *Makindye*. Retrieved 3 2, 2022, from In Wikipedia, The free Encyclopedia: <https://en.m.wikipedia.org/wiki/Makindye-Division>
35. Wikicon, C. (2022, 3 5). *Kampala*. Retrieved 3 10, 2022, from In Wikipedia ,The free Encyclopedia: <https://en.wikipedia.org/w/index.php?title=Kampala&oldid=1075393077>