

**ADEQUACY AND ENFORCEABILITY OF THE KENYAN
ENVIRONMENTAL LAW WITH REGARD TO POLYTHENE
POLLUTION IN KENYA.**

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Declaration

This is to certify that this dissertation is my original work and has not been presented for a degree award in any university or institution of higher learning. Information from other sources have been duly acknowledged.

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Abstract

Kenya has for a long time been affected with issues of polythene pollution which has gotten out of hand over the years with the filling up of gazetted dumpsites in Nairobi. This has brought about serious health risks through the continued dumping of hazardous material such as polythene in un-gazetted areas.

The purpose of this study was to investigate the adequacy of the Kenyan legal framework on the environment and more particularly, polythene pollution in Kenya. The study also sought to show the enforceability of the already existing legal framework on how the various laws are helping to curb polythene pollution in Kenya.

The study is intended to show the connection between the adequacy of the legal framework and enforceability of the law in reducing and ultimately ending polythene pollution. The study examines various jurisdictions that have dealt with the issue as a basis of determining the adequacy of Kenya's legal framework.

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Definition of terms

1. Pollution - the introduction of contaminants into the natural environment that cause adverse change
2. Ecosystem - community of living organisms in conjunction with the non-living components of their environment
3. Flora - is the plant life occurring in a particular region or time, generally the naturally occurring or indigenous—native plant life
4. Fauna -all of the animal life of any particular region or time
5. Non-bio-degradable - waste which cannot be broken down into its base compounds by micro-organisms and other living things, regardless of what those compounds may be.
6. Environmentalism – philosophy regarding concerns for environmental protection and improvement of the health of the environment, particularly as the measure for this health seeks to incorporate the concerns of non-human elements.
7. Biodiversity- the variety of different types of life found on the Earth and the variations within species.
8. Non-anthropocentric (eco-centric) - a nature-centered, as opposed to human-centered, system of values.

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CHAPTER ONE

INTRODUCTION

1.0 Background of the problem

Polythene pollution in Kenya has been a prevalent issue for a number of decades. The increase in polythene pollution can be attributed to the high population growth and industrialization in the country.¹ Plastic bags are issued by supermarkets and at the market place due to their high convenience, strength and inexpensive nature as a reliable way to deliver goods from the store or market to the home of the customer.

The high population growth contributes to the problem of pollution in that there are many households and each household uses polythene products in the form of plastic bags for the carrying and packaging of goods. After the bags have achieved their purpose they are thrown away as waste some of which remain uncollected or discarded in a disorderly fashion. This leads to an increase in polythene waste pollution which can carry serious health risks.

Since the 1980 there has been an increase in the rate of which sewage drains have been clogged all this due to the prevalence of plastic bags that find their way to the sewage systems². This causes a lot of problems, the nasty smell and unsightly fluid but the worst is that it causes diseases such as cholera³. The clogging of sewerage drains also increases the chance of creating a haven for mosquito breeding ground which in turn lead to the spread of diseases such as malaria.

Most of the polythene used end up in landfills and this contributes to land pollution as polythene takes a long time to decompose due to their non-biodegradable nature and this causes the inhibition

¹ Muniafu, M. and Otiato, E., "Solid Waste Management in Nairobi, Kenya. A case for emerging economies" ., (2008)

² Muniafu, M. and Otiato, E., "Solid Waste Management in Nairobi, Kenya. A case for emerging economies" ., (2008)

³ J. Clapp and L. Swanston,, "Environmental Politics", ISSN 1743-8934 online,(2009)

of biodegradable material in or around the polythene bag hence affecting the fertility of the surrounding area.⁴

Polythene pollution can also contribute to the deaths of many animals and birds alike. This is due to the fact that when an animal ingests the polythene it gets choked leading to suffocation or indigestion which leads to the animal or birds death.⁵

The polythene menace also causes the city that was once referred to as the “city in the sun” in its heyday to lose all of its glorious beauty which in turn costs us tourists who are very vital for the country’s economy.

Various studies have been done on the subject of waste management for instance a study on the legislative and institutional frameworks governing solid waste management in Kenya with a particular interest in plastic bags in Nairobi was conducted in 2013 by Kihuria Leah Wanjiku,⁶ it sought to highlight the various institutions and legislations involved in solid waste management in Kenya with an interest in plastic bags. This study focuses on the adequacy and enforceability of the laws already in existence and if there is a need to amend the said laws in order to effectively to reduce and ultimately end polythene pollution in Kenya.

The Kenyan legal framework on waste management comprises of the Environmental Management and Co-ordination Act of 2015 (herein EMCA) as the principle guideline setting up a foundation for other environmental laws. It regulates environmental policy in Kenya and establishes the National Environmental Management Authority which is the institutional body concerned with environmental matters in Kenya. The EMCA also has regulations that address the environmental problem at hand for instance the EMCA Waste Management Regulations of 2006 which deal with the management of solid waste and provides for regulation on the collection and disposal of solid waste products in the country. It also provides for the proper management and maintenance of

⁴ Sara Elis, Sarah Kantner, Ada Saab, Mary Watson, Plastic Grocery Bag: The Ecological Foot print, December 22 2005

⁵ Sara Elis, Sarah Kantner, Ada Saab, Mary Watson, Plastic Grocery Bag: The Ecological Foot print, December 22 2005

⁶ Kihuria Leah Wanjiku, Legislative and Institutional Frameworks Governing Solid Waste Management in Kenya: Case of the Plastic Bags in Nairobi, 2012, Published University of Nairobi School of Law (<http://law-school.uonbi.ac.ke>)

areas where waste material is discarded. This is to prevent people who are not authorised from accessing areas that are harmful and hazardous to their health.

It also comprises of health and sanitation Acts involved with waste management control in Kenya such as the Occupational Health and Safety Act of 2007, which deals with proper waste management practices with a view to curbing the spread of diseases caused as a result of poor waste management practices.

The legal framework also incorporates by-laws formulated to help in the curbing of poor waste management practices for example Nairobi County has two laws relating to the management of waste as well as the production use, the Nairobi City County Solid Waste Management Bill 2015 and disposal of plastic bags the Nairobi City County Plastic Carry Bag Bill 2015.

Even with a substantive and procedural legal framework in place there are still issues of polythene pollution in Kenya. The legislation put in place ought to correct the current situation given that there is an institution already in place for the oversight and enforcement role in curbing polythene pollution.

1.1 Statement of the Problem

The current regulatory framework does not effectively cover polythene pollution in the country as evidenced by the rising rate of polythene pollution in Kenya.

The enforcement mechanisms of the regulatory framework remain weak and minimal effort has been made to correct the problem of polythene pollution in the country.

1.2 Research Objectives.

1. To examine the regulatory framework for polythene pollution control
2. To analyse the adequacy of the regulatory framework for polythene pollution control.
3. Determine whether the current regulatory framework in Kenya is effective compared to other regulatory framework elsewhere.

1.3 Research Questions

1. What is the regulatory framework for polythene pollution control in Kenya?
2. What is the basis for measuring the adequacy of regulatory framework for polythene pollution control?
3. Is the current regulatory framework in Kenya effective as compared to other regulatory frameworks elsewhere?

1.4 Rationale of the Study

There is a need to conduct a research on the impact of the constitution and the laws governing polythene pollution on the environment and how they are being implemented so as to curb polythene pollution in the country and regulate and manage the use of polythene products in the country.

Polythene pollution is a serious issue that affects all flora and fauna in the ecosystem. Given its non-biodegradable nature it could cause a lot of problems among them enhancing the spread of diseases, getting into the food chain, blocking sewage channels and spoiling the general aesthetics of the country.

There is a need to study various policies that can be implemented to ensure that polythene pollution is controlled and ultimately eradicated, the methods that can be used to change the attitude of Kenyans towards maintaining a clean and pollutant free environment through public participation, as the late environment champion Wangari Maathai would put it *"You cannot protect the environment unless you empower people, you inform them, and you help them understand that these resources are their own, that they must protect them."*⁷ There is a need to study how environmental impact assessment reports with regard to polythene pollution can be implemented and the policy of reduce, reuse and recycle can be adapted to help in the fight against polythene pollution and finally a study is required to brainstorm on the notion of regulating, managing, reduction and ultimately non-reliance of polythene products in the Kenyan setting.

⁷ Benjamin Barczewski, How Well Do Environmental Regulations Work in Kenya? : A Case Study of the Thika Highway Improvement Project (2013)

From research conducted by Muniafu and Otiato with regard to solid waste management it has been discovered that there are loopholes in the law that allow for the continued polythene and plastic pollution in the country.⁸ These loopholes have contributed vastly to the continuing pile up of polythene and plastic waste in landfills. Furthermore the increase in the companies that manufacture and produce polythene product is alarming and has allowed the increase of polythene waste as it was discussed by Muchane and Muchane in their research.⁹

It was Bahri in his research on the adverse effects of plastic waste on the environment that showed that there was a problem in the environmental sector and particularly with regard to polythene and plastic pollution which emerged as a consequence of externalities in production and consumption; ineffective by-laws on littering and illegal dumping; failure of garbage collection and disposal systems; and low public awareness and poor life-cycle considerations all of which the Constitution has mandated the people through the county governments and the people themselves to take care of.¹⁰

This study seeks to identify the loopholes established by Muniafu and Otiato and look for an effective remedy that will seal the loopholes and find an environmentally friendly solution on how to make the already existing regulatory framework more effective in curbing polythene pollution in the country

1.5 Scope of the study

The study covers the adequacy and enforceability of the Kenyan legal framework on the environment with a keen interest in polythene pollution. The purpose of the study was to determine whether Kenya had an adequate environmental legal framework and how the various institutions laid out enabled enforcement of the environmental laws with regard to polythene pollution.

The study used qualitative research methods, such as use of secondary data that is journal articles, books, newspaper articles and internet sources, as a basis of forming the study. The secondary data was helpful in the research and aided in the process of achieving the study's objectives and answering the study questions.

⁸ Muniafu, M. & Otiato, E., "Solid Waste Management in Nairobi, Kenya. A case for emerging economies", (2010)

⁹ Eunice Muchane and Grace Muchane, Solid Waste Management in Nairobi and the town of Limuru, in Kenya , Unpublished Environmental Engineering Thesis, Tampere Polytechnic University, Finland 2006

¹⁰ Bahri, G, "Sustainable Management of Plastic Bag Waste: The Case of Nairobi, Kenya" (2005)

1.6 Chapter Summary

The research is aimed at establishing whether there is a regulatory system for the prevention of polythene pollution, if there is a regulation, is it adequate for the prevention of polythene pollution and in what ways can the current regulatory system be improved to match with those of other states that have handled the problem. Through the research, the current regulatory framework was analysed with regard to polythene pollution and the steps that have been taken to rectify the current polythene pollution problem. Furthermore, a few examples of states that have managed polythene pollution have been examined to give a clearer focus on the path that Kenya ought to take if it is to regulate and prevent further polythene pollution from taking place.

The study is structured in five chapters tackling specific aspects of the environmental regulatory framework with regard to polythene pollution. The first chapter deals with introduction to the study and why it is necessary to look at the environmental regulatory framework and the plastic problem in Kenya.

The second chapter focuses on the theoretical framework on which the study is based. It aims to give the study a background where it derives its legitimacy and provide a guideline for the study.

The third chapter analyses the Kenyan regulatory framework for plastic bag waste management by discussing the current regulatory framework dealing with polythene pollution in Kenya in order to determine its adequacy and compare it to other jurisdictions which have dealt with the problem.

The fourth chapter examines the regulatory framework on the environment and the function of the law in addressing polythene pollution. It endeavours to describe the current state of the environment in Kenya with regard to polythene pollution, the steps taken to curb polythene pollution and the function of the law in addressing polythene pollution in Kenya.

The fifth chapter deals with the conclusion and recommendations on how best to deal with the polythene pollution problem in the country.

CHAPTER TWO

THEORETICAL FRAMEWORK AND RESEARCH METHODOLOGY

2.0 Theoretical Framework

Environmental law has its origins in environmentalism which is a value system that seeks to redefine humankind's relationship to nature and to induce man to be stewards of nature rather than exploiters of nature with a view to respecting the functioning of natural systems and by limiting activities that disturb these systems.¹¹ It follows Aldo Leopold's synthesis of ecologically based land ethic "a thing is right when it tends to preserve the integrity, stability and beauty of the biotic community. It is wrong if it tends otherwise."¹² His land ethics is the leading land use management alternative to the progressive conservation movements strategy of multiple use of resources and has provided the basis for power resource preservation and protection laws.¹³ The land ethic has been used by many legal scholars to formulate many environmental regulation laws mainly because it follows the equilibrium paradigm (balance of nature) because it was seen to be a neutral organizing principle that could be applied to the use and management of all natural resources.¹⁴

The equilibrium theory which is based on a balance of nature sees the need to let nature regulate itself and is of the view that man should let nature be. It is against the interference of man in nature. The equilibrium paradigm has a large basis for its justification and thus can accommodate new views of environmentalism. However it is based on ethics rather than science thus it is possible for the equilibrium paradigm to have flawed interpretations that arise due to passions rather than logical and reasoned out thought.¹⁵

The equilibrium paradigm does not focus its attention on the primacy of science which overtime has become one of the basis of formation of environmental laws. The fact that it relies primarily on ethics makes it a difficult choice to use it as a theory to justify the need for an effective and

¹¹ A. Dan Tarlock, History of Environmental Law

¹² Aldo Leopold, A Sand County Almanac and Sketches Here and There, 224-25 (1949) A. Dan Tarlock, History of Environmental Law

¹³ Eric T. Freyfogle, The Land Ethic and Pilgrim Leopold, 61 U Colorado Law Review 217(1990) A. Dan Tarlock, History of Environmental Law

¹⁴ Dan A Tarlock, Environmental Law- Ethics or Science,(1992)

¹⁵ Dan A Tarlock, Environmental Law- Ethics or Science,(1992)

adequate regulatory framework for polythene pollution control. This is because in order to make laws that regulate polythene use, one must consider the science behind it in order to make informed decisions on the best applicable laws. Secondly the equilibrium paradigm is of the view that nature should return to its former state free from human interference. This means that human laws should in no way affect biodiversity as this would amount to interference of nature and this means that man has been left unregulated to interact with the ecosystem. A little interference in the ecosystem through regulation of man's relation with nature is needed to ensure the protection of the environment. This ties in with polythene pollution control in that man should not be allowed to use the ecosystem as a dumping site, the law should regulate the actions of man to prevent him from causing environmental pollution of any kind given that polythene can affect the ecosystem in multiple ways.

Environmental law derives its political power and legitimacy from science. Ecological and toxicology have identified a large range of harm to be caused by human factors. The same science that environmental law derives its political power and legitimacy, is the science that can remedy the harm caused by human factors. Environmental law divides itself into two broad fields; that is pollution risk remediation which is the correction of human caused problems affecting the environment and biodiversity protection.¹⁶

This research is based on the theories of environmentalism, with a keen interest on the non-equilibrium paradigm. The Non-equilibrium paradigm supports the position of the prevention and mitigation of human disturbances that affect both land and water ecosystems with a bid to protect biodiversity from destruction.¹⁷ The non-equilibrium paradigm dominates ecology and toxicology which are sciences that provide for justifications a wide range of prohibitions on human activities that alter the land and water ecosystem, they form the basis on which pollution control laws are made.

The Non-equilibrium paradigm rejects the notion of a balance in nature, which is supported by the alternate paradigm of equilibrium. The equilibrium paradigm on the other hand posits that nature should be left alone and man should not interfere with nature. Both Botkin and Tarlock

¹⁶ Dan A Tarlock, Non-Equilibrium Paradigm in Ecology and the Partial Unravelling of Environmental Law Loyola Los Angeles Review, Vol. 27 1121, 1994

¹⁷ Dan A Tarlock, Non-Equilibrium Paradigm in Ecology and the Partial Unravelling of Environmental Law Loyola Los Angeles Review, Vol. 27 1121, 1994

agree that it will be difficult for the equilibrium paradigm to work as there is constant human interaction with nature and this makes it impossible for the ecosystem to revert back to the ideal state of nature.¹⁸

The Non-equilibrium paradigm shares the view that there is a need for biodiversity protection and that unregulated humans pose a threat to biodiversity.¹⁹ Being guided by ecology means that it offers more room for scientists to come up with possible solutions and remedies for ecosystems that have already been damaged by human disturbances through the paradigm's constant need for research. Through this approach legislators can come up with laws and regulations that limit human disturbance and keep it to a minimum.

In relation to the Non-equilibrium paradigm, the Non-anthropocentric theory of environment is helpful in ensuring the protection of biodiversity and its ecosystems. The Non-equilibrium paradigm pushes for the rights of nature as opposed to the balance of nature this augurs well with Non-anthropocentric views as man is removed from the centre of the ecosystem and the focus lies entirely on the environment as the main interest that needs protecting. The laws are geared towards the protection of the environment as it is not being used by man alone but by various flora and fauna. The Non-equilibrium paradigm does not undermine the need for biodiversity protection.²⁰ This means that this paradigm understands that there is a need to protect the ecosystem as a whole and this notion greatly supports the non-anthropocentric theory whereby all focus of the environment is drawn away from man and focus is placed on the ecosystem as a whole.

It is of utmost importance that when creating laws involving environmental regulation there is a need to focus more on the environment and less on man. This does not mean that we ignore man's actions that may impact the environment, it is imperative that man's actions be checked because if man is left unregulated, he can cause a lot of damage to the ecosystem and the magnitude of human integration is always too great.²¹

¹⁸ Dan A Tarlock, Non-Equilibrium Paradigm in Ecology and the Partial Unravelling of Environmental Law Loyola Los Angeles Review, Vol. 27 1121, 1994,

¹⁹ Dan A Tarlock, Non-Equilibrium Paradigm in Ecology and the Partial Unravelling of Environmental Law Loyola Los Angeles Review, Vol. 27 1121, 1994

²⁰ Edward O. Wilson, , Diversity of Life, Dan A Tarlock, Environmental Law- Ethics or Science, (1992)

²¹ Edward O. Wilson, Diversity of Life, Dan A Tarlock, Environmental Law- Ethics or Science , (1992)

The Non-anthropocentric theory, also encourages the use of adaptive management strategies which are management strategies that change with in response to new scientific information.²² This works well with the non-equilibrium paradigm of using science as a basis of legitimizing environmental law and also shows that there will always be a new way of doing things and that is why there is a need to adapt a mechanism that changes with time.

The Non-equilibrium paradigm and Non-anthropocentric theories work well with polythene pollution regulation because the Non-equilibrium's reliance on sciences such as ecology and toxicology as a basis of justification offer it the necessary information required to be able to formulate laws that will better preserve the environment. An informed research on the causes of polythene pollution on the ecosystem leads to consideration of the impact on environment that the pollution will have rather than focussing solely on the human impact. This brings about the aspect of Non-anthropocentrism as the focus will be on the entire ecosystem and not just on man. In making regulations it is imperative to know the effect those laws may have for instance a polythene pollution regulation may propose that all polythene waste be dealt with by burying them in the ground or by burning them, this would be a good regulation as it will have dealt with the polythene pollution problem. However, it does not bear in mind what those actions might have on the ecosystem and the overall environment. This is where the science in ecology comes in, by opting to burying the polythene waste in the ground, it affects the fertility of the ground as polythene is a non-biodegradable material and will also affect other biodegradable material necessary for soil fertility. By opting to burn the polythene will result in the formation of toxic fumes that will pollute the air and might contribute to health complications to the people living in the surrounding areas. This shows the use of science as a basis for reliance in coming up with environmental regulation. It also shows non-anthropocentric views through considering the ecosystem such as the soil and the air in making of environmental regulations.

Pope Francis in his encyclical *Laudato Si*, which focuses on protection of the Earth as our common home, noted that there has been a growing concern with regard to the state of the society, he points out that man has seen himself as he lord of the Earth and is plundering the earth at will and this violent nature of plundering the Earth is evident in the sickness that present themselves in the air,

²² Dan A Tarlock, *Environmental Law- Ethics or Science*,(1992)

on land, in the water and in all forms of life.²³ He points out that man is at the apex of destroying the environment of which he is part of, as we are made up of the dust of the earth and we are composed of the elements of the earth through the air we breathe and receive life and the waters that refresh us.²⁴

He further adds that Pope John Paul II also touched on the issue of the dilapidated state of the environment in his Encyclical whereby he warned that human beings seem to see no other meaning in the environment other than what serves their immediate use and for consumption. In the same Encyclical Pope John Paul II called for a global ecological conversion after noting that little had been done to safeguard the moral conditions for an authentic human ecology.²⁵

The Encyclical letters of the Pope counters Dan A. Tarlock views that religion are a cause rather than a solution to the environmental problem. This is because through the edicts of the Holy fathers, they show a great concern to the state of the environment and they attribute this problem to men who in their actions destroy their environment without thinking of the consequences that might have on them and on future generations.

A paper done by World Vision which aimed to show a relationship between man and the environment focussed on the view as man as a steward for the environment, this moves away from the non-anthropocentric theory as it places man in the centre of the environment but instead of being the antagonist, man is given the role of a steward, a protector and carer for the environment.²⁶ They borrow from the Bible whereby Man is given a responsibility by God to work and take care of the Garden of Eden which can be equated to the environment.²⁷

This is a fresh and biblical way by which man's action on the environment can be examined. Using such an approach in the protection, conservation and preservation of the environment could prove to be beneficial given that man uses the environment's resources for his own survival and he does not use it alone and thus must be ready to prevent any incidences that might cause harm to the

²³ Pope Francis, Encyclical Letter *Laudato Si'* Of The Holy Father Francis On Care For Our Common Home, par.2

²⁴ Encyclical Letter *Laudato Si'* Of The Holy Father Francis On Care For Our Common Home, par.2

²⁵ Encyclical Letter *Redemptor Hominis* (4 March 1979), 15: *AAS* 71 (1979), 287, Encyclical Letter *Laudato Si'* Of The Holy Father Francis On Care For Our Common Home, par.5

²⁶ Jared Hyneman, Christopher Shore, *Why Are We Stewards Of Creation: World Vision's Biblical Understanding of How We Relate to Creation*,(2013)

²⁷ The Holy Bible, Genesis 2:15, New International Version.

environment and this includes preventing polythene pollution given that it affects multiple aspects of the environment.

The Non-anthropocentric theory ties in with the research as it removes the focus away from man as being the apex of the environment and thus disallows him from plundering the earth as he wishes. This is attributed to the fact that man does not use the earth's resources alone and his actions have consequences. Through the lack of adequate checks and balances man has been able to choke up the earth with polythene and plastic products.

The notion of using man as a steward for the environment is also helpful in tackling polythene pollution as it gives man a responsibility over the environment and as such he is required to care for it, to protect, conserve and to preserve it as mandated by God in the Bible. However, it differs with the non-anthropocentric theory as man is still the main focus of the environment but it comes around to assert more responsibility on him for being the apex of the environment. Using the two approaches could therefore offer the possibility whereby man has responsibility and is a steward of the environment but he is not at the main focus of the environment. He would be in the position that he shares the environment with other flora and fauna with the ecosystem being the main focus of the environment.

2.1 Research Methodology

The research was conducted based on the qualitative method of research in order to meet the objectives and answer the questions posed by the study. The mode used was that of content analysis that is using various sources of materials such as books, journals, articles, internet searches and the current legislation that deals with the environment.

The method was suitable for the research as it allowed me to focus more keenly on the current regulations available and enabled me to examine and determine whether the current regulation was suitable or whether it needed to be amended to tackle the polythene pollution problem. By focusing on articles and journals I was able to see the various approaches that previous scholars had used and this enabled me to get an approach that was more legal given that most of the research done in the matter were of a social science nature.

The content analysis method was particularly helpful in the comparison of legislative regimes between Kenya and other states that have the same problem or have tackled the problem. This is

because time as well as travelling expenses would not allow me to get first-hand information from those places.

2.2 Data Collection and Analysis

Data was collected from articles, journals, books, legislation and internet searches. They yielded good results in informing the research and provided a base for which the objectives and the research questions were met and answered. The information also enabled the formulation of a pattern and theme that the research would follow in answering the research questions. The information received was analysed with accordance with the themes brought about by the data collection. It also enabled the evaluation of the credibility or usefulness of the information received.

CHAPTER THREE

ANALYSIS OF THE KENYAN REGULATORY FRAMEWORK FOR PLASTIC BAG WASTE MANAGEMENT.

3.0: Introduction

In this chapter an analysis of the research questions guiding this study are discussed. This involves examining the current regulatory framework for polythene pollution control in Kenya, the adequacy of the regulatory framework in Kenya and lastly it makes a comparison between the current regulatory framework in Kenya and other regimes

3.1: The current regulatory framework for polythene pollution control in Kenya.

The first question deals with the regulatory framework for polythene pollution control currently in operation in Kenya. The protection of the environment first and foremost is enshrined in the Constitution of Kenya 2010 under Part 2, which covers the environment and natural resources in Kenya. Article 69(1) of the Constitution gives the government the mandate to ensure that there is sustainable exploitation, utilisation, management and conservation of the environment and natural resources, and ensure the equitable sharing of the accruing benefits; encourage public participation in the management, protection and conservation of the environment; establish systems of environmental impact assessment, environmental audit and monitoring of the environment and eliminate processes and activities that are likely to endanger the environment.²⁸ The Constitution further makes an obligation to the citizens under article 69(2) to ensure that every person has a duty to cooperate with state organs and other persons to protect and conserve the environment and ensure ecologically sustainable development and use of natural resources.²⁹

Under Article 2(5) of the Constitution it follows that the general rules of international law shall form part of the Laws of Kenya. This means that any international instrument that tackles polythene pollution and has been signed by Kenya forms part of the Kenyan laws. However, there

²⁸ Article 69 (1) (a),(d),(f) and (g), Constitution of Kenya 2010

²⁹ Article 69 (2), Constitution of Kenya 2010

has been no international treaty on onshore polythene or plastic pollution that has been signed by Kenya.

Through the Constitution, Parliament has been given the authority to make laws.³⁰ Through this authority parliament has been able to come up with a legislation that is suitable for dealing with the environment and the country's natural resources. Through the Environmental Management and Co-ordination Act of 2015, all aspects covering the environment and a variety of pollutants which in section 2 of the Act, is described as any substance whether liquid, gaseous or solid which may directly or indirectly alter the quality of any receiving element of the environment, is hazardous or potentially hazardous to human health or the environment and includes objectionable odours, radio-activity, noise temperature change or physical, chemical or biological change to any segment or element of the environment.³¹

The Act also establishes the National Environment Management Authority under section 7. The authority is tasked with the responsibility of exercising general supervision and coordination over all matters relating to the environment and to be the principle instrument of government in the implementation of all policies relating to the environment.³²

The authority is also in charge of monitoring the environment and ensuring that it is protected and there is prevention of degradation of the environment. Furthermore, it is tasked with the duty of advising the government of new emerging conventions and treaties and their application in the county's legal framework.

In exercise of the powers conferred by sections 92 and 147 of the Environmental Management and Coordination Act, the then Minister of Environment and Mineral Resources, on recommendation of the National Environment Management Authority and upon consultation with the relevant lead agencies came up with the Waste Management Regulations to prescribe the procedure and criteria for handling categories of waste. Sections 1, 2 and 3 of the general provisions of the regulations outline the responsibilities of the waste generators. These provisions prohibit any person from disposing of any waste in public places. Section 2 requires all the waste generators to collect segregate and dispose or cause to be disposed of the waste generated as per the provisions of the

³⁰ Article 94 (5), Constitution of Kenya 2010

³¹ Environment Management and Co-ordination Act of 2015

³² Section 9, Environment Management and Co-ordination Act of 2015

regulations. All the waste generators have an obligation under section 3 of the provisions to ensure that the waste generated is transferred to a licensed transporter and that the transferred waste is disposed of in a designated disposal facility.³³

Other legal regulatory frameworks exist within the counties in that some counties have formulated laws that can be said to combat polythene pollution, for instance Nairobi City County has a bill with regard to plastic carry bags which prohibits the use of plastic carry bags. It is yet to be enforced as an Act within the county.³⁴ Another bill still pending to be assented to by the governor within the county, is the Nairobi City County Solid Waste Management Bill of 2015 which aims to tackle the growing problem that is the management of solid waste in the County.³⁵

The Bills objects, provided for under section 3 are to provide a county legal framework for solid waste management function with compliance to part 2 of the Kenyan Constitution. It also seeks to provide a legal framework that encourages public participation in the management, protection and conservation of the environment pursuant to Article 69(1) (d) of the Constitution. The Bill also seeks to provide for a legal basis for the implementation of the county integrated solid waste management plan as well as to provide for and regulate the participation of various actors in solid waste management in the county.³⁶

Section 8 of the Bill proposes for an environmental levy charged by the executive committee in charge of finance in consultation with the governor at a fee equivalent to two percent of the property rates payable for rateable properties. The levy is to cater for waste management and dealing with environmental nuisances and to improve the quality of the environment generally.³⁷

Section 9 deals with the recovery of material waste and considers using the three R motion that is Reduce, Re-use and Recycle, as a means of solid waste management. It also works well with section 10 which seeks to embrace the idea of waste categorization for better sorting and solid waste management practices.³⁸

³³ Section 1, 2 and 3, Environment Management and Co-ordination Act (Waste Management Regulations) 2006

³⁴ Nairobi City County Plastic Carry Bags Bill of 2015

³⁵ Nairobi City County Solid Waste Management Bill of 2015

³⁶ Section 3, Nairobi City County Solid Waste Management Bill of 2015

³⁷ Section 8, Nairobi City County Solid Waste Management Bill of 2015

³⁸ Section 9 and 10, Nairobi City County Solid Waste Management Bill of 2015

Another county that is tackling the issue of plastic pollution is Baringo County with Baringo County Polythene Materials Control and Management Act of 2014 which tackles the management and control of the usage of polythene materials in the county. The Act under its objects seeks to establish a framework within Baringo County to conserve and protect the environment and natural resources in the county and promote sustainable use for future and current generations. It also seeks to protect the environment from nuisances such as plastics and polythene that pollute the environment, provide a system for the management and disposal of polythene and plastic waste, encourage the recycling and reuse of polythene and plastic material to reduce the instances of pollution in the county, promote use of biodegradable material as an alternative to polythene and plastic products in order to protect the soil for increased and sustainable productivity and to establish a framework that would encourage public participation in the conservation and protection efforts.³⁹

Section 6 of the Act seeks to classify polythene and plastic products that may be used in the county. Section 7 prohibits the manufacture, importation, sale or use of any plastic or polythene material not specified under the list provided for under section 6.⁴⁰

Section 8 calls for the setting up of a plastic waste disposal mechanism by a person with approval from the County Chief Environmental Officer who wants to set up a polythene manufacturing plant. The polythene must be as per the standard set out by the County Chief Environmental Officer.⁴¹

These are some of the provisions set out by the Baringo County Act with the aim of addressing polythene pollution in the county and they would go a long way if they are properly implemented and enforced by the county government of Baringo County.

Currently there is an absence of a national law on polythene pollution regulation and the lack thereof can attribute to the rising cases of polythene pollution in the country. However the Bills (although they are not yet enforceable as laws, they provide a good overview on the counties plan to curb polythene pollution and offer solutions to proper solid waste management practices) and County Acts already in place play a pivotal role in ensuring that there is regulation in place to curb

³⁹ Section 3, Baringo County Polythene Materials Control and Management Act of 2014

⁴⁰ Section 6 and 7, Baringo County Polythene Materials Control and Management Act of 2014

⁴¹ Section 8 and 9, Baringo County Polythene Materials Control and Management Act of 2014

the rising cases of polythene pollution. The role of the non-equilibrium paradigm should play out in that the creation of polythene regulation laws to ensure the prevention and mitigation of human disturbances that contribute to the vice of polythene pollution. Scientific research ought to be done by the mandated bodies that is the National Environmental Management Authority and the Ministry of Environment and Natural resources to come up with a law that will address polythene pollution in the most effective way.

The Non-anthropocentric theory calls for a nature oriented regime in dealing with matters of the environment this should also be regarded in coming up with an effective regulation mechanism to curb polythene pollution. This means that the law should not just focus on the effects of the polythene pollution on man, they should also cater for the environment as a whole. This ties in with the Non-equilibrium paradigm in the sense that the law created should offer a mode of prevention of further harm to the environment be it the banning of the use of polythene products in order to mitigate the effects already present in the environment. A total ban on the manufacture, sale and use of polythene products will go a long way as to ensure that the environment remains polythene free.

The Non-anthropocentric and non-equilibrium paradigm mode of regulation can also be supported by the role of man as a steward for the environment. When man is given the role to be a steward of the environment it should be taken as a responsibility and therefore an obligation for man to ensure that the environment is well preserved and free from any factors that might cause environmental pollution. Thus the regulations should have penalties that should be enforced where man fails in his duty to preserve the environment

3.2: Adequacy of the current regulatory framework in Kenya.

This question deals with the adequacy of the regulatory framework already in place. It seeks to ascertain whether the current regulatory framework is enough to tackle the polythene pollution problem or if there is a need to strengthen the framework already in place. In order to answer this question it is imperative that the goals that the legal framework in operation are scrutinized and to also show where there is a disconnect in achieving those goals. For instance, the Environmental

Management and Coordination Act's goal is to ensure that there is a legal and institutional framework in place for the effective management of the national environment.⁴²

This question focuses on the level that the regulatory framework has been able to achieve success in controlling polythene pollution and in turn raises the issue whether the current regulatory framework is enough to aid in the control of polythene pollution in the country. There have been various articles in the newspapers and also from United Nation Environmental Program that have raised the issue of the plastic bag menace. Before her demise, Nobel Laureate Professor Wangari Mathai, while still the assistant minister of environment, supported a plan by Kenya to ban the use of polythene shopping bags and impose heavy penalties on plastic products manufacturing plants distributing the environmental pollutant. The ban was proposed by a report compiled by two public policy think-tanks in Kenya, the National Environmental Management Authority (NEMA) and the Kenya Institute for Public Policy Research and Analysis (KIPPRA) who also advocated for stiffer levies for plastic bags pollution.⁴³

There are more than 70 plastic industries in Kenya with capacities ranging from 800-1000 tons per year. Most of these industries are located in Nairobi, the capital city of Kenya, although some are located in other smaller cities, such as Mombasa, Nakuru, Thika and Eldoret. An estimated 4,000 tons of the thin plastic bags, termed in the report as "flexible", are produced each month in Kenya mainly for use as shopping bags, but also for covering products such as bread. About half of them are less than 15 microns thick and some are as little as seven microns thick, making them unsatisfactory for use more than once.⁴⁴

The environment department at City Hall documented that polythene bags collected in the county accounted for 70% of the total waste collected stretching the Ksh 1.5 billion annually allocated for garbage collection to the limit.⁴⁵ This shows that much of the county governments revenue goes

⁴² Preamble, Environment Management and Co-ordination Act of 1999

⁴³ <http://www.panapress.com/UNEP-Council-discusses-polythene-pollution-menace--12-563679-40-lang1-index.html> Accessed on 14th November, 2015 at 10:44 AM

⁴⁴ Eunice Muchane and Grace Muchane, Solid Waste Management in Nairobi and the town of Limuru, in Kenya, (Unpublished Environmental Engineering Thesis, Tampere Polytechnic University for Applied Sciences, Finland 2006), 14. Kihuria Leah Wanjiku, Legislative and Institutional Frameworks Governing Solid Waste Management in Kenya: Case Of Plastic Bags in Nairobi, 2012, Published University of Nairobi School of Law (<http://law-school.uonbi.ac.ke>)

⁴⁵ <http://www.nation.co.ke/lifestyle/DN2/Nairobi-ban-plastic-bags/-/957860/2358378/-/5pbyg3z/-/index.html> Accessed on 14th November, 2015 at 11.02 AM

to garbage collection and most of the garbage collected is polythene or plastic based, much of this money would have gone to development of other areas should there have been a good mechanism to control the plastic pollution menace.

The fact that a big amount of revenue is spent on garbage collection and in particular plastic garbage shows that there is a deficit of enough regulatory mechanisms governing polythene pollution. Although there have been attempts to fight the menace through the introduction of bills such as the Nairobi City County Plastic Carry Bags Bill of 2015, it still begs the question is the regulatory framework in place enough to effectively deal with the menace or should there be a national legislation as opposed to legislation on the county level. In 2007, the then Finance Minister, Amos Kimunya, had proposed a 120% excise duty on all plastic bags which would have been effective in the deterrence of the use of polythene bags given that they would be expensive to produce thus expensive to buy and to use. Countries like Ireland had a similar proposition and saw a significant drop (90-95%) in the plastic bag usage in the country after adoption of the tax in what would come to be known as the PlasTax.⁴⁶

Looking at the rate at which polythene bags and containers are being discarded and the lack of control in the sector to see the destruction or constructive use of the polythene waste it is clear that there is a need for a more adequate regulatory framework for the control of polythene pollution, not just on a devolved level but on a national level. The campaign for the promotion of anti-plastic bag laws shows that there is an urgent need to change the regulatory framework in place for a more involving and adequate one that would tackle the menace effectively.

The Constitution of Kenya 2010 under article 69(1) has given the state the responsibility to ensure that the environment is well managed and the natural resources are equitably shared, this provision ensures that the government has a framework in place for the protection of the environment. However the framework that is developed by the government should ensure that it does not focus solely on the relationship between man and the environment as man does not use the environment alone. Basing the environmental regulatory framework on the theory of non-anthropocentrism ensures that the natural environment takes center stage in the regulation process and all forms of

⁴⁶ J. Clapp and L. Swanston, "Environmental Politics" ISSN 1743-8934 online,(2009)

human disturbance remain regulated so as to ensure that they don't cause further harm to the environment.

The Constitution of Kenya 2010 and the Environmental Management and Co-ordination Act of 2015 take an anthropocentric point of view in trying to regulate the environment. This means that most of the focus in trying to regulate the environment falls on man and not on the environment. The value given to the environment depends on the use it has for man. This means that if an aspect of the environment serves no useful purpose for man it remains unregulated for instance, the landfills where we send our solid waste polythene waste included falls under the larger environment and its effects affect different aspects of the environment. In allowing the use of dumping sites for the storage of potentially harmful substances means that we are using the environment to serve us.

A Non-anthropocentric point of view will reason out that the use of the environment as a dumping site is harmful to both the environment and human health as a whole as the concentration of solid waste does not only affect the environment but the human population as well. The non- equilibrium paradigm plays out in the sense that it will allow for scientific research to be carried out on how best to formulate regulations that will ensure the protection of the environment and how best man can handle solid waste while observing the rights of nature.

An adequate environmental regulatory framework should have regard for the environment first as it seeks to protect, conserve and manage the environment. This means that in formulating any legislation on the environment the effects that are likely to affect the environment should be in the long run good for both the environment and human life. In relation to a polythene regulation law this means that if the disposal of polythene waste products is harmful to the environment in a myriad of ways then the production and use of polythene products ought to be banned and a more environmentally friendly and equally inexpensive product should be developed.

3.3: A comparison between the current regulatory framework in Kenya and other regimes.

This question compares the current regulatory framework already in place in Kenya with other regulatory framework in other countries for example Rwanda and Ireland.

Kenya first took a stand in banning plastic bags in 2007 where it imposed a ban on all plastic bags under 30 microns thick. The ban was not well received and thus was not successful in aiding the

fight against polythene pollution. Kenya tried again in coming up with a ban but this time around the ban affected plastics with less than 60 microns thick in March 2011.⁴⁷ The effectiveness of the ban is debatable given the fact that plastic bags with less microns continue to be sold, used and discarded. The ban on the plastic bags have not been well implemented as has been the case in some countries that are tackling the same issue.

Rwanda became the first African country to place a ban on plastic bags by introducing a legislation, Law N°57/2008 Of 10/09/2008 Relating To The Prohibition Of Manufacturing, Importation, Use And Sale Of Polythene Bags In Rwanda. The law advocates for the banning of the manufacture, use, importation and sale of plastic bags in Rwanda as per Article 1 of the Act. The Act gives a clear definition of polythene material so as to avoid any ambiguities as to what items are to be prohibited. Secondly the Act further gives a clear list of the actions that are prohibited in its third article which includes the manufacture, sale importation and use of polythene material. However under Article 4, it provides for exceptional cases where the Prime minister may compile a list of polythene bags that may be used exceptionally in Rwanda.⁴⁸

The body in charge of dealing with environmental issues in Rwanda, the Rwanda Environmental Management Authority is the body in charge of authorising any use, manufacture, sale or importation of polythene bags in the country this is as per Article 5 of the Act. However the person seeking to use the polythene material must provide a written application containing the reasons as to why he requires to use polythene bags as well as the means and methods he intends to use to manage the polythene waste.⁴⁹ The Act gives authority to a number of bodies in dealing with the control of use of polythene in Rwanda. These bodies include, the Judicial police who enforce the Acts provision by arresting those who contravene the law, custom officials who prevent the importation of polythene bags in the country, Rwanda Environmental Management Authority who work on environmental policies and regulation as well as approving applications for use of polythene bags in the country, The Rwandan Bureau of Standards for ensuring that companies do

⁴⁷ <http://plasticbags.planetark.org/gov/othercountries.cfm> Accessed on 14th November, 2015 at 2.20 PM

⁴⁸ Article 1, 2, 3 and 4, Law N°57/2008 Of 10/09/2008 Relating To The Prohibition Of Manufacturing, Importation, Use And Sale Of Polythene Bags In Rwanda

⁴⁹ Article 5, Law N°57/2008 Of 10/09/2008 Relating To The Prohibition Of Manufacturing, Importation, Use And Sale Of Polythene Bags In Rwanda .

not manufacture polythene bags illegally and finally any personnel who has been mandated by the Ministry of Environment.⁵⁰

The Act also provides for penalties upon contravention of Article 3 and lays out how the persons found culpable will be punished. Furthermore it has a provision where by the penalties of persons who are found guilty of recidivism will be doubled.⁵¹ This acts as a good deterrence measure to ensure that such an offence is not repeated.

The Act came into force on the tenth day of September 2008. The law is well implemented given that visitors and foreigners are disallowed from entering the country with plastic bags. The plastic bags are confiscated by the authorities if they are found in possession of a foreigner.⁵² This move has greatly helped the efforts of polythene pollution control and eradication in the country. It has proved to be more effective in Rwanda than in Kenya because the legislation follows implementation rather than just a ban on plastics not backed by legislation or any mode of implementation.

Ireland is perhaps one of the best examples to use in determining effectiveness of polythene pollution regulatory mechanisms. This is due to the fact that Ireland was one of the first countries to impose a nation-wide levy to discourage the use of plastic bags. The country introduced a 15-Euro-cent levy on plastic supermarket checkout bags in March 2002. The move was an instant success as it saw an immediate decrease in the usage of plastic bags from 328 plastic bags per capita to 21 bags per capita within a week. Plastic bag litter was also reduced by up to a 95% margin following the introduction of the levy. The plastic bag levy was increased to 22-Euro-cents following a slight increase in plastic bag usage in 2007. Currently plastic bag usage in Ireland remains at about 11% pre-levy low.⁵³

Ireland's regulatory framework with regard to polythene pollution is well developed and based on the European Union directives such as the European Commission packaging and Packaging Waste

⁵⁰Article 6, Law N°57/2008 Of 10/09/2008 Relating To The Prohibition Of Manufacturing, Importation, Use And Sale Of Polythene Bags In Rwanda

⁵¹Article 6, Law N°57/2008 Of 10/09/2008 Relating To The Prohibition Of Manufacturing, Importation, Use And Sale Of Polythene Bags In Rwanda

⁵²<http://plasticbags.planetark.org/gov/othercountries.cfm> Accessed on 14th November, 2015 at 2:20 PM

⁵³ <http://plasticbags.planetark.org/gov/othercountries.cfm> Accessed on 14th November, 2015 at 3:09 PM

Directive 2015/720 (Amendment).⁵⁴ The environmental legislation is principally administered and enforced by the Environmental Protection Agency, which is established by the Environmental Protection Agency Act of 1992, local and regional Authorities as well as the Minister of Environment in Ireland. The Environmental Protection Agency is the main body that enforces environmental legislation in Ireland. It is mandated to prosecute persons who break any of the country's many legislation on environmental laws as well as conducting research, preventing any form of environmental pollution, conserving the environment, advising the government on environmental policies and formulation of policies with regard to environmental issues in the country.⁵⁵

The Act that is related to polythene and plastic pollution in Ireland is the Waste Management (amendment) Act of 2001. This is the law that is responsible for the setting up of environmental levies in Ireland and also the setting up of the Environmental Fund which comprises of funds derived from the environmental levies and landfill levies.⁵⁶ The Act together with the Environmental Protection Agency Act work together to regulate polythene pollution in Ireland.⁵⁷ The Act provides for the amendment in section 72 of the 1996 Waste Management Act by including the Environmental Levy which is chargeable on the person or the supermarket conducting business that requires the use of plastic bags. It further defines a plastic bag as a bag made wholly or in part of plastic, and which is suitable for use by a customer at the point of sale in a supermarket, service station or other sales outlet.⁵⁸ Failure to pay the levy which is set by the Act at 19 Euro-Cents but is subject to change each financial year through approval by the Minister of Environment, or failure to comply with the Act, would amount to an offence.

The Environmental levy imposed by the Act contributes to the Environment Fund which is also established by the Act under section 9 (6) (l).⁵⁹ The Environment Fund is used to fund operating recycling facilities as well as fund other environmental initiatives. The function of the levy was

⁵⁴ , Alison Fanagan, Alan Roberts, Noeleen McHenry and Jason Milne, A&L Goodbody, Practical Law, Multi-Jurisdictional Guide 2012/13 Environment Report

⁵⁵ Environmental Protection Agency Act No.7 of 1992, Ireland.

⁵⁶ <http://www.incpn.org/displayarticle.asp?a=55&c=2> accessed on 2 December 2015 at 4.14 PM

⁵⁷ Preamble Waste Management(Amendment)Act 2001, Ireland

⁵⁸ Section 9, Waste Management(Amendment)Act 2001 , Ireland

⁵⁹ Section 9(6) (l), Waste Management(Amendment)Act 2001, Ireland

not to raise fund but to change the consumer behaviour of using less thin plastic bags and instead use reusable bags.⁶⁰

The effectiveness of the levy regulation method has really helped Ireland to be successful in the anti-plastic campaign. The success is a leaf that the Kenyan regulatory framework should borrow and implement in order to mitigate and eventually eradicate environmental pollution.

⁶⁰ <http://www.incpn.org/displayarticle.asp?a=55&c=2> accessed on 2 December 2015 at 4.14 PM

CHAPTER FOUR

THE KENYAN REGULATORY FRAMEWORK ON THE ENVIRONMENT AND FUNCTION OF THE LAW IN ADDRESSING POLYTHENE POLLUTION

4.0 Introduction

This chapter focuses on the findings that the study has been able to come up with. It provides a descriptive analysis of the current situation of the environment with regard to polythene and plastic pollution control and regulation and how the current regulatory framework is addressing the issue.

4.1 Current state of the environment in Kenya with regard to polythene and plastic pollution

The state of the environment presently is that there is a large amount of polythene and plastic products littered all over the country and especially in major towns such as Nairobi. This has greatly been caused by the lack of effective environmental policies with regard to polythene pollution and a weak regulatory framework to aid in the eradication of polythene pollution.

One problem facing polythene pollution control and eradication is that there is a lack of definition as to what constitutes polythene waste and what differentiates it from other types of solid wastes. The Environmental Management and Coordination Act does not mention polythene waste as part of solid waste, it generalizes the types of waste and puts them all in one category of solid wastes. This lack of demarcation between solid waste and plastic waste puts a strain in the efforts of having a polythene free environment given that there is no long term solution to the problem of polythene pollution.⁶¹

Waste management in general is a huge problem in Kenya and it is attributed to the increasing rate of urbanization and rural-urban migration. The rapid urbanization has led to an increase in the production of solid wastes as there are more people and the higher the number of people the higher the number of waste products they produce. The problem comes in when the rate of solid waste collection is lower than the production of solid waste, in 1992, 800 to 1000 tonnes of solid waste

⁶¹ Ambuchi, David Ombisi, Plastic waste management in Kenya an evaluation of policies and regulations on plastic bags and plastic bottles waste in Nairobi

were produced in Nairobi alone and less than 10 percent of the waste products were collected, in 2002 the solid waste products increased to 1530 tonnes 40 percent of which remained uncollected or disposed of carelessly or burnt (Syagga 1992, CCN 2007).⁶² Currently the rate of solid waste generation is 4,016 tonnes on a daily basis and over 2,390 tonnes remain uncollected and a huge number of the total solid waste include polythene and plastic products.⁶³

The state at which polythene pollution is rising is worryingly high, as of 2007 over 2 million plastic bags were being handed out as carrying bags and after the use of such bags most of them were disposed of through improper channels and some remained uncollected. The careless disposal of polythene and plastic waste has contributed to a lot of problems in the country for instance it has caused blockages in waterways and drenches contributing to flooding which in turn provides for breeding grounds for mosquitos which spread malaria among other diseases as well as spreading the risk of contracting cholera. The polythene waste also contributes to choking of wildlife and soil pollution.⁶⁴

The law that regulates environmental issues in Kenya is the Environmental Management and Co-ordination Act of 2015. It was enacted against a backdrop of 78 sectoral laws dealing with various components of the environment, the deteriorating state of Kenya's environment, as well as increasing social and economic inequalities, the combined effect of which negatively impacted on the environment. The supreme objective underlying the enactment of the Act was to bring harmony in the management of the country's environment.⁶⁵

This is the main legislation that addresses environmental issues and sets up regulatory bodies that handle environmental issues such as policies, research advisory opinions to the government as well as advising the National Assembly on the laws to be promulgated. Such bodies include the National Environmental Management Authority which is a semi-autonomous government body created under section 9 of the Environmental Management and Co-ordination Act and is mandated to

⁶² http://na.unep.net/atlas/datlas/sites/default/files/unepsiouxfalls/atlasbook_1135/Kenya_Screen_Chapter5-End.pdf accessed on 27th November 2015 at 11.30 PM

⁶³ B N K Njoroge, M. Kimani and D. Ndunge, Review of Municipal Solid Waste Management: A Case Study of Nairobi, Kenya <http://www.researchinventy.com/papers/v4i2/C04216020.pdf> accessed on 27th November 2015 at 11.30 PM

⁶⁴ http://na.unep.net/atlas/datlas/sites/default/files/unepsiouxfalls/atlasbook_1135/Kenya_Screen_Chapter5-End.pdf accessed on 27th November 2015 at 11.30 PM

⁶⁵ <http://www.nema.go.ke/index.php/about-us/establishment> Accessed on 27th November, 2015 at 3.30 PM

exercise general supervision and coordination over all matters relating to the environment and to be the principal instrument of the Government of Kenya in the implementation of all policies relating to the environment.

The Act classifies hazardous waste under various classifications and their effects to the environment as well as to persons. It defines hazardous waste as any waste which has been determined by the Authority to be hazardous waste or to belong to any other category of waste provided for in section 91.⁶⁶ This definition is wide as it makes plastic waste products open to a broader spectrum as plastic waste affects the environment in more than one way.

With the lack of a proper definition of polythene pollution it makes it harder for efforts in addressing the rising problem to be effectively implemented. The act has broadened the spectrum in which some of the solid waste are to be looked at and in turn has caused confusion in the collection of solid waste leading to degradable waste being collected together with non-biodegradable waste thereby hampering the efforts of recycling or change of use of those substances. The law should be clear and non-ambiguous to allow for better preservation, conservation and management of the environment.

Given that the constitution under article 69 (2) mandated that the protection of the environment be a duty of all the citizens,⁶⁷ county governments such as Nairobi and Baringo have formulated legislations to deal with polythene and plastic pollution.

The Nairobi City County Plastic Carry Bags Bill of 2015 is a mode of ensuring that there is an end to plastic bag pollution in the county. The object and purpose of the bill is to provide for the control of pollution and the conservation of the environment within the precincts of Nairobi City County.⁶⁸ The Bill which is yet to come into force, seeks to control the manufacture of plastic carry bags and other plastic products from recycled plastics and pigmented carry bags, control the use of those bags and prohibit the disposal of non-biodegradable plastic waste in public places, drains and sewers for restoring and maintaining clean environment.⁶⁹

⁶⁶ Section 2, Environmental Management and Co-ordination Act 2015

⁶⁷ Article 69(2), Constitution of Kenya 2010

⁶⁸ Section 3, Nairobi City County Plastic Carry Bags Bill of 2015 Section 3

⁶⁹ Section 3 (a),(b) and (c) ,Nairobi City County Plastic Carry Bags Bill of 2015

The Bill prohibits the manufacture of plastic carry bags of less than 30 microns and 8” x 12” in size under section 5 contravention of the said section would amount to an offence. The Bill also disallows the use and sale of plastic non-biodegradable carry bags by retailers and further disallows the handing out of the carry bags free of charge.⁷⁰

The Bill provides for the prohibition of disposal of plastic bags in public places or in places where there is a public view. It also disallows the disposal of bio-degradable material in non-biodegradable bags. The Bill also calls for a permit for any person seeking to remove non-biodegradable plastic waste especially if such removal would cause harm to the public or cause any drainage.⁷¹

The Bill also offers enforcement mechanisms such as a department that will undertake the task of filing reports, training personnel on collection methods, carry out research on proper methods of handling with plastic waste and create public awareness among other duties.⁷² However the Bill is not clear as to which the relevant authority is and the constituent members.

Under section 31 it provides for general penalties for any party found in contravention with the Bill. It provides that any person found in contravention of the Bill for an offence that no penalty has been laid out will be liable for an imprisonment of up to one year or a fine worth five hundred thousand shillings.⁷³

4.2 Steps taken by the state to curb polythene and plastic waste pollution

The government has taken some steps in trying to correct the issue of polythene and plastic pollution, for instance in 2008 they introduced a policy banning the use of plastic bags with less than 30 microns and this would have gone a long way in reducing the amount of polythene and plastic waste currently in dumping sites and all over the country had it not been greatly opposed by the members of the public.⁷⁴

⁷⁰ Section 11, Nairobi City County Plastic Carry Bags Bill of 2015

⁷¹ Section 15, Nairobi City County Plastic Carry Bags Bill of 2015

⁷² Section 16, Nairobi City County Plastic Carry Bags Bill of 2015

⁷³ Section 31, Nairobi City County Plastic Carry Bags Bill of 2015

⁷⁴ Bashir, Nabil H H, Plastic Problem in Africa, Japanese Journal of Veterinary Research, 61(supplement) S1-S11 2013

The Environmental Management and Co-ordination Act of 2015 is a useful tool in combating polythene and plastic pollution given it is the national law that covers the protection of the environment.

The Constitution of Kenya 2010 under article 69(1) gives responsibility to the state to ensure that the environment is well managed and conserved and the natural resources are equitably shared. This responsibility also applies in the formulation of policies and legislation that would address the issue of polythene pollution in the country as provided for under article 72 of the Constitution. The Constitution gives the state a mandate to ensure that the environment is protected against all forms of pollution including polythene pollution. So far, not much progress has been made in protecting the environment from polythene pollution in a national level but through devolution some counties for example Nairobi and Baringo have come up with legislation that will help in the efforts of eradicating polythene pollution in the country. This is a step in covering a larger part of the country in eradicating polythene pollution.

The Environmental Management and Co-ordination Act has established the National Environmental Management Authority (NEMA) which is the regulatory body for the management and conservation of the environment. They carry out surveys, which assist in the proper management and conservation of the environment, advise the Government on legislative and other measures for the management of the environment or the implementation of relevant international conventions, treaties and agreements as well as advise the Government on regional and international conventions, treaties and agreements to which Kenya should be a party and follow up the implementation of such agreements among many other functions.⁷⁵ This is the body that tasked with ensuring that the environment is well managed and conserved to ensure that there is no environmental degradation. However there has been a laxity in combating polythene pollution given that the rates are still rising. There is lack of an implementing arm in the body and this might explain the reason as to why there are minimal to no effort in addressing polythene pollution.

⁷⁵ Section 7, The Environmental Management and Co-ordination Act of 2015

4.3 The function of law in protecting the environment from Polythene pollution in Kenya

The current legal framework in Kenya with regard to polythene pollution is guided by the Constitution of Kenya 2010 which provides for the preservation, conservation and proper management of the environment it also gives power to the legislature to make laws with regard to environmental issues.⁷⁶

The Environmental Management and Co-ordination Act of 2015 is a general overall regulation covering all aspects of the environment including the setting up of institutions that manage the affairs of everything to do with the environment. The Act forms the basis of all other environmental laws and should therefore inform other laws on the best environmentally friendly regulatory framework that should be put in place.

The Act should take into account the Non-anthropocentric theory in forming a basis for which other laws ought to be based on. This is because we, as humans are here to serve the environment and not the other way around. We depend on the environment for a number of things and it is only necessary that we take care of the environment. This means we ought to be stewards for the environment and the environmental laws should incorporate this view.

There is a need for the Environmental Management and Co-ordination Act to incorporate the Non-equilibrium paradigm point of view in realizing that nature has its rights and they should also be protected as much as human rights have been protected and in so doing should ensure that human acts do not cause irreparable damage to the environment.

The Constitution of Kenya as discussed in the current state of the environment with regard to polythene pollution section has mandated the responsibility of taking care of the environment to every person this is a form of upraising the good stewards of nature point of view discussed by Pope Francis in his Encyclical *Laudato Si* which makes the point that man should be stewards of the environment as we depend on it and are sustained by it. To ignore it will be the same as to cut the hand that feeds us.

In exercising their mandate as county government, some of the counties have come up with legislation that seeks to control polythene pollution within the boundaries of their county. Such counties include Nairobi and Baringo. The Nairobi City County Plastic Carry Bag Bill of 2015,

⁷⁶ Article 69 and 72, Constitution of Kenya 2010

calls for the control of the manufacture use and sale of plastic carry bags and other plastic products. This is a good move given that polythene pollution in Nairobi County is at an all-time high. However, the Bill should be keener on focusing on the complete banning of the use of plastics in the county. It does not serve the purpose of allowing some plastics to be used while others are banned yet both contribute to the same problem.

Using the non-equilibrium paradigm the Nairobi City County Plastic Carry Bag Bill should have looked at the effects of polythene on the environment and how it affects the rights of nature in so doing they would have realized that even in banning the use of some plastics the other unregulated plastics will also have a similar effect to the environment.

Secondly the Bill should address the issue of the complete banning of the manufacture of plastic bags by companies and should induce a high penalty fee for every infringement of a directive banning the production of plastics and a double the payment for a further infringement of the same directive.

With the devolution of such efforts, it is a clear indication that there is a problem in the environment sector which needs to be handled before it gets out of hand and with the laws as well as implementation of those laws, polythene pollution can be dealt with. However, there is a need to make a national law to strengthen the county laws as the agenda may not be the same with each and every county and as such some counties may not see the need to prioritize such legislations.

Furthermore the state ought to address the issue of a clean-up exercise with a view to eradicating the polythene pollution menace as a means of promoting the stewards of nature point of view. This should also entail conducting scientific research on the best methods on how to deal with polythene waste products this will be in line with the non-equilibrium paradigm that calls for scientific research as a basis for environmental law.

Another instance that the state should consider is the complete banning of the manufacture, production, sale, use and importation of polythene products that are harmful to the environment as this is a sure way of ensuring that there is a reduction of polythene waste in the country and it also augurs well with the non-anthropocentric theory in that since the human disturbance that affects environment has been dealt with then the rights of nature can be upheld.

The function of the law in regulating the environment and in particular ensuring the reduction of polythene pollution requires a lot of research and fact finding in order to come up with the best means of ultimately ending polythene pollution. The process can be helped through the encouragement of citizens in a clean-up exercise to ensure that everyone plays a part in maintain a clean and healthy environment, it also serves as the constitutionally mandated public participation and citizen responsibility in taking care of the environment.

4.4 Summary of major findings

The research done in the study showed that there is a laxity in dealing with polythene pollution there being few legislations dealing with the matter. The study also shows that the cases of polythene pollution are on the rise, there being no means or methods of implementing legislation already in place to curb the pollution as well as proper channels of addressing the issue. County laws may not be enough to handle the issue as polythene pollution is more of a national problem than a county problem, there is need for a national policy such as the one used in Ireland which saw a sudden decline in the use of plastic bag after the introduction of the PlasTax.

However, there is a question with relation to the sizes of the countries where the effective polythene pollution measures have been implemented as compared to Kenya's size. The question being that Ireland and Rwanda are relatively smaller when compared to Kenya so how will the measures adopted in those countries work in Kenya? To answer the question, there needs to be a progressive measure that will handle polythene pollution in the country that is the laws could call for the application of the levy on all plastic products thereby discouraging the consumers from relying on polythene products and look for alternative means to package their goods. Eventually the law can call for the complete ban on plastic products as very few people will still be willing to pay a levy on the use of plastic products.

Secondly, there is a need to define the roles of regulatory bodies with regard to polythene pollution there is also a need to provide for an implementation arm to those bodies to allow them to be effective in their work of conserving, preserving and managing the environment. Furthermore, there is a need to increase the powers of those bodies in order for them to fully cover the scope of preventing any form of pollution to the environment.

Finally there is a need to harmonise the legislation tackling polythene pollution in all the counties to form one national policy that would ensure that the environment is well protected and preserved for future generations.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

This study was conducted with a view to establish the adequacy of Kenyan environmental regulations with regard to polythene and plastic pollution control and management. From the study it has been established that the environmental regime has been covered under the Constitution of Kenya through its mandates to the people and the government. Through the people in the sense that they have been obligated to take care of the environment, to preserve, protect and conserve it and through the government in that they have been obligated to make sure that the environment is protected for the interest of the people and they make enough laws to ensure the conservation, protection and preservation of the environment. It is through such power and mandate that the government came up with the Environmental Management and Co-ordination Act of 2015 which although being a regulatory law, has provided for provisions for conservation, protection and preservation of the environment. It is through such laws that we see the formation of bodies that help in the management process of the environment. Furthermore, the Kenyan Constitution under article 2(5) allows for the application of international instruments which Kenya is party to, to form part of the Laws of Kenya as long as it does not contravene the constitution which is the supreme law of the land.

From the study, it has been established that Kenya has an environmental regulatory framework that is keen on ensuring the protection, conservation, preservation and effective management of the environment. However, it begs to ask the question is the regulatory framework in place adequate to prevent polythene and plastic pollution in the country. These question can be looked from the point of view of how the law has been able to prevent polythene and plastic pollution It can also be said that the government failed in its mandate to provide the public awareness necessary to avert the vice. The study therefore finds the current regulatory framework not to be effectively adequate in addressing the issue of polythene and plastic pollution.

The other question the study sought to answer was how Kenya compared to other countries that had dealt with the vice. The examples used were those of Rwanda which had a simple and straightforward legal regulatory framework that tackled the polythene issue on point. The country

has a legislation particularly addressing polythene and plastic bag products their use and prohibited use as well as punishment for contravening the law on the use, sale, production and importation of plastic and polythene products into the country. This has gone a long way to ensure that Rwanda remain polythene free.⁷⁷

The other country that was used in comparison was Ireland. Ireland has tackled the issue of polythene pollution by introducing in its Waste Management Act what they call the PlasTax.⁷⁸ This is a levy placed on all plastic bags used in the country and the proceeds of those levies go to the Environmental fund which is used to conduct research on how to better the environment.⁷⁹ This levy has been successful in that the use of plastic bags in the country has dropped by over 95% since the implementation of the Act.⁸⁰

Kenya can borrow from the two countries in that they can adopt a hybrid whereby they stop the production and manufacture of polythene products, the sale, use and importation of polythene products in favour of environmentally friendly products or in the case of those who cannot do without polythene or plastic products they can make a levy or tax that is high enough to prevent or allow minimal use of polythene products as is the case in Ireland.

With matters regarding to the regulatory framework and its adequacy, it is imperative that Kenya looks at a viable and effective legislative regime that will be able to tackle the issue of polythene pollution head on. There should also be a body that regulates the collection and recycling of plastic and polythene waste in order to allow for accountability and effective control of the process. The Rwanda Environmental Management Authority has been tasked with the duty of ensuring that it remains polythene free and that all licensing of polythene products must pass through the body before being allowed in the country.⁸¹

Through county laws such as the Nairobi City County Plastic Carry Bags Bill of 2015, they set a good foundation and make the goal of achieving a polythene free environment more promising. However, this can only be possible through effective implementation of the Bill and proper

⁷⁷ Law N°57/2008 Of 10/09/2008 Relating To The Prohibition Of Manufacturing, Importation, Use And Sale Of Polythene Bags In Rwanda

⁷⁸ Section 9, Waste Management(Amendment)Act, 2001

⁷⁹Section 9 (6) (I), Waste Management(Amendment)Act, 2001

⁸⁰ J. Clapp and L. Swanston, "Environmental Politics" ISSN 1743-8934 online, (2009)

⁸¹ Law N°57/2008 Of 10/09/2008 Relating To The Prohibition Of Manufacturing, Importation, Use And Sale Of Polythene Bags In Rwanda

enforcement mechanisms that will see the most of the laws and regulations observed once it has been enacted as a proper law governing polythene pollution in the county.

The study was not without its limits, there were some complications that limited the effective gathering of information. For instance there was limited recent local research done in the area as most of the data were pre- promulgation of the Kenyan Constitution 2010. This affected the study in that the data gathered mostly focussed on the old laws and required caution so as not to include details that have already been dealt with by the current constitution. The material was nonetheless helpful to the study as it did not include a lot of changes of the law and was relatable to the study at hand. It would be helpful in future research in the area to focus on new literature and laws that would have been enacted to deal with polythene pollution in the country.

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