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**INSTITUTE OF DIPLOMACY AND INTERNATIONAL STUDIES**

**ENVIRONMENTAL DIPLOMACY IN LARGE PARTICIPATORY CONFERENCES: A  
REVIEW OF KENYA'S ENVIRONMENTAL LAWS 1963 - 2018**

**RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE  
REQUIREMENT FOR THE AWARD OF A DEGREE OF MASTER OF ARTS  
IN INTERNATIONAL STUDIES**

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## DECLARATION

I, the undersigned, declare that this project is my original work and that it has not been presented in any other university for academic credit.

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Sign: .....

Date.....

The research project has been submitted for examination with my approval as the Supervisor

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Date: .....

## **DEDICATION**

This project work is dedicated with gratitude to my family and friends for their continuous support.

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I want to thank God Almighty for his Every day mercies and grace.

To my family, thank you for the moral support, encouragement and love throughout the course.

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## ABSTRACT

As early as since independence Kenya led in advancing environmental concerns at regional and international level demonstrating commitment to sustainable development. Kenya's participation and negotiations in international environmental agenda has been part of its development of 'soft power'. Environmental issues including on transboundary resources has transcended the boundaries of Kenya's current legal and institutional structure. At the same time, Kenya has been looked up to spearhead environmental sustainable development by its neighbors who share in the trans boundary resources. The study used a guide for semi-structured, open-ended expert interviews at the relevant government ministries. The first part of this study outlines the impact of Environmental resources and their economic bearing on Kenya and her communities. It then proceeds to chronicle how Kenya protects, develops and manages them through domestic and international laws. The last part of the study identifies the gaps in terms of implementation deficits, unintended (and adverse) impacts in other policy sectors, and in the context of the role of Kenya in international relations in the international system. The research findings confirmed that the environmental resources of Kenya are highly valued; effective coordinated implementation of environmental regulations is essential and sustainable financing is lacking. The research findings also confirmed that there is tremendous degradation by the activities associated with economic activities. Furthermore, the impacts of degradation of shared resources are now felt across boundaries, e.g. air and water pollution causing regional and global concern. This study recommends that Kenya should develop and implement a national assessment programme to monitor the state of the environment. Industries or sectors may be designed to minimize environmental harm but unless an authority is there to monitor emissions, standards slip. Kenya may not need new laws because her environmental legal regime is adequate. Thus, should use the linkages provided by domestic and international laws to tackle the challenges of climate change in the short and long terms, and emphasis should be on synchronizing the implementation processes so as to take advantage of the resources often provided in the international agreements. The study also recommends that the implementation activities should be synchronized across all the economic sectors. Sectoral thinking and implementation hinders sustainable development; and that sector specific laws should be streamlined with the Constitution (2010). The study recommends that Kenya in her position at the UN Security Council should put her efforts in shaping a common African approach on how to protect, stem the environmental losses and enhance the sustainable productivity of the natural capital. This common approach would guide the implementation of environmental laws in the continent and formulate any other laws that might be developed in the future. Thus, successful implementation of domestic and international environmental laws in Kenya will influence how she steers Africa, which must move the continental economy from protectionism to facilitating sustainable development.

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## ACRONYMS

AfCFTA	African Continental Free Trade Area
ASALs	Semi-arid Areas
CBNRM	Community Based Natural Resource Management
EMCA	Environmental Management and Coordination Act
GDP	Gross Domestic Product
GHGs	Greenhouse gases
IEL	International Environmental Law
INRM	Integrative Natural Resource Management
INRM	Integrative Natural Resource Management
IPCC	Intergovernmental Panel on Climate Change
KES	Kenyan Shilling
KMFRI	Kenya Marine and Fisheries Research Institute
LVBC	Lake Victoria Basin Commission
MEA	Multilateral Environment Assessments
MNCs	Multinational Corporations
MSE	Maasai Mara - Serengeti Ecosystem
NEMA	National Environment Management Authority
NRM	Natural Resource Management
NRM	Natural Resource Management
UNCED	United Nations Conference on Environment and Development
UNGA	United Nations General Assembly
UNSC	United Nations Security Council
USD	United States Dollar

## CHAPTER ONE

### INTRODUCTION AND BACKGROUND TO THE STUDY

#### 1.1 Background

In this study, I explore how Kenya use and protect her environmental resources and establish laws on sharing the benefits and minimize the losses. I delve to understand why despite having the international environmental laws there continues to be adverse environmental degradation influencing her community. In 1963, Kenya gained independence and subsequently sovereignty of governance of its environmental resources and has made tremendous progress since then, even having a foreign policy that seeks it to be a leader in environmental affairs.

Environmental resources, including non-renewable and renewable, and ecosystem services are a part of the real wealth of nations. Countries make great efforts and often go into great lengths to use and protect their natural resources to ensure the benefits remain within their borders as a source of livelihood. There are major resources that do not have any boundaries including the air we breathe, the sky, rivers, lakes, oceans, mountains, forests among others. The economic and social systems of Africa are moderately built on its natural resources which are used to generate and build wealth.<sup>1</sup> These resources steer the process on economic development and growth that is necessary to fight the number one challenge in Africa, poverty. The World Bank records that the lives of 1.216 billion people<sup>2</sup> in Africa are directly intertwined on environmental resources providing food, raw materials, fresh water and medicinal resources<sup>3,4</sup> and environmental resources provides 28% of income for households, 77% of originates from natural forests.<sup>5</sup> The environmental resources

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<sup>1</sup> World Bank, 2011. *The Changing Wealth of Nations – Measuring Sustainable Development in the New Millennium*. Environment and Development. World Bank

<sup>2</sup> Worldometers. (2019). Retrieved April 5, 2019, from <http://www.worldometers.info/world-population/africa-population/>

<sup>3</sup> United Nations Environment Programme. (2012). *The Global Environment Outlook: Environment for the future we want (GEO-5)*. Nairobi: DEWA.

<sup>4</sup> World Resources Institute. (2005). *Millennium Ecosystem Assessment 2005: Ecosystems and Human Well-being: Synthesis*. Washington DC: Island Press.

<sup>5</sup> Environmental Income and Rural Livelihoods: A Global-Comparative Analysis. 2014. Arild Angelsen, Pamela Jagger, Ronnie Babigumira, Brian Belcher, Nicholas J. Hogarth, Simone Bauch, Jan Börner, Carsten Smith-Hall, Sven Wunder. *World Development*, 64 (S1), pp. PP12-28.

are a source of raw materials for Africa's industrial, agricultural, construction, pharmaceutical production and tourism sectors.<sup>6</sup>

About 42 % of Gross Domestic Product (GDP) and 70 % employment in Kenya is obtained from; and rely on environmental resources fueled sectors. These sectors largely based on these resources include fishing, agriculture, tourism, mining and agroforestry<sup>7</sup>. In 2017, it is estimated that the Gross Value Added from the environment and natural resources grew by 6.3 per cent. The export sector is anchored on Kenya's mega bio-diversity including: over 35,000 species of flora and fauna. The 467 inland lakes and wetland habitats covering about 2.5% of the total area provide water as a valuable resource. Her tourism industry is fueled by many plant and animal species only found in Kenya. In 2017, the total contribution of Travel & Tourism to GDP was estimated to be KES 769.1 billion (USD7,432.9mn), 9.7% of GDP, and is forecast that in 2028 international tourists' arrivals will total to 2,132,000 as reported by the World Travel and Tourism Council 2018<sup>8</sup>.

Many times the actions of one country within its own borders as had positive and negative implications knowingly and unknowingly, both in its neighboring countries. The degradation of environmental resources has significant implications on human wellbeing and health, with environmental risks accounting for about 28 percent of Africa's disease burden<sup>9</sup> as reported by the Africa Environment Outlook (2003). Several of crucial natural resources transcend Kenya's boundaries and she is obligated to collaborate with the neighboring countries to sustainably manage these resources.

To state that environment issues have become increasingly important in the realm of International Relations is an understatement. Stilz (2009) states that every state has the right to exercise sovereignty over its natural resources that are found within its territorial borders, even those crossing political borders under international law. Pearce (2002) writes that the Natural Capital

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<sup>6</sup> UNEP, 2013. Africa Environment Outlook - 3

<sup>7</sup> Kenya National Bureau of Statistics. (2018). *Economic Survey 2018*. Nairobi: Government of Kenya.

<sup>8</sup> World Travel and Tourism Council. (2018). *Travel and Tourism Economic Impact 2018: Kenya*. London: WTTC.

<sup>9</sup> Africa Environment Outlook – Environment and Health, Chapter 1

theory indicates that manufactured capital of any country, i.e. the industries of economic value generally requires the natural environmental resources.

Seeking the consent of a State in how to use the resource or mitigate the externalities without raising conflicts is often sought through regional, or international meetings and conferences. Recently, the discussions on how natural resources are used in countries have dominated the international system and have had serious consequences on political influence, balance of power and patterns of competitions among countries. International regime of the management of shared resources requires State consent before a decision is taken concerning a certain shared natural resource. This collaboration also presents opportunities for cooperation and peace building. Most States usually want to benefit most from these resources and will go to lengths to defend their interests, which if, violated is equaled to threats against their sovereignty.

Many African countries which are at the take-off stage of economic development wish that their economic growth is accompanied by respect for the natural environment. Kenya has been working towards achieving sustainable development through bilateral and multilateral negotiations for strategies, policies, laws, conventions that can enhance the sustainable development of its natural shared resources protecting them from degradation. Pressing issues in sustainable development has pressed Kenya into a more assertive State in multilateral diplomacy. At the beginning of 2020, the President Uhuru Kenyatta, in his New Year's message, claimed the year saw the country's profile "soar" through leadership in areas of international peace and diplomacy" as reported in the East African Weekly (January 1 2020).

Karanja (2001) argues that while Kenya 's economy is undoubtedly growing as indicated by the GDP, the forests, mineral resources, fisheries have declined and land and wildlife numbers have fallen overall reducing the income generated. Water and land shortage are becoming widespread, as the renewable and nonrenewable natural resources become depleted. The increasing toxic chemicals, and discharge of waste effluent into the soil, water and air have also degraded the quality of these resources. These changes signify that Kenya's environmental resource base is being depleted and degraded. This is supported by the National Environment Management Authority (NEMA) and Emerton (1997) who point out that the present exploitation rate of many

of the natural resources base of Kenya which fuels her development is largely unsustainable. This is happening amidst the tremendous efforts to protect the environmental resources from degradation.

## **1.2 Problem Statement**

The current trends in degradation of critical environmental resources have required collaboration of the countries in the international system on how to reduce these threats and the adverse effects they have on their communities. This is because natural environmental resources comprise of the country's wealth and form the foundation for raw materials for industries fueling the growth of the economy. A State by itself cannot be solely entitled to access, use or manage shared resources to the exclusion of others. Fulazzaky (2014) notes that the main challenge that occurs in managing shared resources is always balancing the interests of the entire group. Competing interests over the shared resources may give rise to conflict threatening international peace. Benvenisti (2002) illustrates that the international regime of management of shared resources is further coupled with challenges, as in many cases State consent is required before a decision is taken concerning a certain shared natural resource. Ingo-Walter (1979) writes that the nations of the world are going about the business of environmental protection at different speeds, with different degrees of rigor, and using different techniques.

The conservation management and utilization of Kenya's natural resources is of fundamental importance for the future of the country. Kenya has made efforts in leading roles in international conferences on environmental concerns often resulting to a signed multilateral agreement. Kenya laws and cooperation since 1963 has helped Kenya take leadership in the international system for the natural resources. We would expect that the investment Kenya has made in terms of skills, finances, institutions and time, she would have no more threats challenging her natural wealth base. However, threats on this wealth has continuously increased, destabilizing livelihoods for her communities, and in some cases threatening even her sovereign relationship with her neighboring countries leading to aggressiveness, less armed conflicts. At the same time, Kenya has marked several major milestones when signing international laws, even hosting offices of international conventions as part of her leadership in sustainable development, yet hosts of problems

surrounding her natural resources continue to increase, latest one being the Kenya-Somalia conflict over the Indian Ocean. Does Kenya need to change her approach in implementation or what are some of the gaps that have long remained to be fulfilled to show positive progress in protecting her natural resources? Are new laws required? Finally, since independence Kenya has taken a pragmatic approach, most often being among the fore African countries negotiating an international environmental agreement as well as signing it as soon as concluded, yet threats to her natural environmental wealth continue to increase, not abate. Has her role influenced her relationship with her neighbors and if so, how has it changed? Has this role helped her negotiate better in the international system or has it improved her relationship with the neighboring countries in managing the transboundary assets and reducing the threats facing the communities?

### **1.3 Objectives**

#### **1.3.1 General Objective**

The general objective of this study is assessing Kenya's environmental resources wealth base against the environmental laws put in place and Kenya participating in the international environmental conferences.

#### **1.3.2 Specific Objectives**

- 1) To outline the impact of Environmental resources and their economic bearing on Kenya
- 2) To chronicle Kenya's International and domestic Environmental Laws
- 3) To recommend policy options

### **1.4 Research Questions**

1. What are the impacts of Environmental resources and their economic bearing on Kenya?
2. What are the Environmental laws put in place by Kenya that govern its environmental resources?
3. What are the policy recommendations?



## **1.5 Study Hypothesis**

The hypothesis of the study is that environmental laws does not influence environmental protection.

The hypothesis can be formulated as follows:

H<sub>0</sub> = a = 0: environmental laws do not influence environmental protection

H<sub>i</sub> = a = 1: environmental laws influence environmental protection

## **1.6 Justification of the Study**

The impact of the degradation of environmental resources that they are no longer able to provide ecosystem services for human wellbeing has increasingly become a global concern. This has led to African States recognizing the significance of healthy ecosystems interlinkages with economic growth. One of the most dangerous consequence of environmental issues is climate change which in International Relations is becoming an international security threat. Thus, it is urgent to reduce the rate of environmental changes by installing strategies that aimed at, on one hand, protecting the natural resources and at the same achieving sustainable development particularly for developing countries such as Kenya. The study will contribute to the academia by adding knowledge and a new perspective to the existing body of knowledge in the area of environmental law in Kenya.

The study will also seek to bridge the existing gaps in literature in the environmental laws and international relations of Kenya. The study will identify environmental risks, and identify the strategies put in place to lessen resource use conflicts by promoting community participation, minimize adverse environmental effects, inform decision-makers, and help to lay the base for environmentally sound policies. The study will be crucial for the public's information and awareness; attempting to explain why Kenya makes tremendous investments in environmental law. It will also enlighten them on the dangers of threats faced by natural resources and how Kenya benefits internationally from the frameworks put in place.

## 1.7 Literature Review

### 1.7.1 Impact of Environmental resources and their economic bearing on Kenya

In many African countries, environmental resources accounts for between 30 per cent and 50 per cent of total wealth. This wealth comes from Africa's remarkable environment consisting of reefs, mangroves, deserts, mountains, rainforests, savannahs etc. with a varying biodiversity of plants and animals, oil and gas reservoirs; minerals and rocks to aesthetic components such as historical sites. 54 per cent of the World's gold resources, 85 per cent of its platinum, 68 per cent of its cobalt, half of diamonds and chromium deposits, and up to one-fifth of uranium supplies. Lately, the continent become an important source of oil and gas with over thirty countries now in this category as reported by the African Union in 2015.<sup>10</sup> The rich natural resource endowment provides jobs, better infrastructure, health and education services for about 1.1 billion people<sup>11</sup>Africans.

80 percent of Africa's rural population depends on traditional medicine harvested from forest biodiversity including animals, trees, shrubs and herbs as reported by the World Health Organization in 2000.<sup>12</sup> Tourism in Africa is driven by the environmental goods and services with several places in Africa being the world's favorite tourism destinations. 20 million people are estimated to be working directly or indirectly for the tourism industry, accounting for 7.1 per cent employment in Africa.<sup>13</sup> Eight of the World's renowned biodiversity hotspots are in Africa.<sup>14</sup> UN World Tourism Organization recorded 58 million international tourists arriving in Africa in 2016, bringing earnings to estimated US\$ 35 billion.<sup>15</sup> The international tourism sector is forecast to rise earnings received in Africa to USD66.9 billion in 2027.<sup>16</sup> Africa is surrounded by ocean. It is

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<sup>10</sup> African Union. (2015). Invest in Africa 2015. London. Newsdesk Media Publishers.

<sup>11</sup> UN Department of Economic and Social Affairs, 2017. The World Population Prospects: The 2017 Revision.

<sup>12</sup> World Health Organisation: Regional Office for Africa. (2000). Promoting the role of traditional medicine in health systems: A strategy for the African Region. 50th Session Regional Committee for Africa (p. 2). Ouagadougou: World Health Organisation.

<sup>13</sup> African Development Bank Group, New York University-Africa House and Africa Travel Association. (2015). Africa Tourism Monitor 2015 -Unlocking Africa's Tourism Potential (Vol. 3 · Issue 1). Abidjan: Africa Development Bank Group.

<sup>15</sup> United Nations World Trade Organisation. (2017). Tourism Highlights: 2016 Annual Report. Spain: United Nations World Tourism Organisation.

<sup>16</sup> World Travel and Tourism Council. (2017). Travel & tourism economic impact 2017 Sub Saharan Africa. London: World Travel and Tourism Council.

estimated that her coastal and marine resources are valued at US\$ 24 trillion. The fisheries sector employs 12.3 million people<sup>17</sup> and provide food security for about over 400 million people<sup>18</sup>; contributing up to 38per cent of GDP.<sup>19</sup>

Clark (2007) and DeFries (2012) write that governments across the continent have been putting great efforts to understand how human-environment interactions can generate more sustainable outcomes. Countries consider their environmental resources as wealth due to the many services arising from ecosystem processes and benefits provided to human beings. Further explained by Edward (2019), who notes that in the recent years there has been substantial progress covered by economists in collaboration with ecologists and other natural scientists in applying environmental valuation methodologies to measure the contribution of these services to the national economies.

Pearce (2002) noted that assigning economic values to non-marketed benefits has the potential to radically change the way we evaluate our environmental resources such as forests and lakes. Later Pearce sought to place a monetary value on eco-system services to internalize the effects of pollution or contamination within a cost-benefit analysis. He describes that this information would then be communicated to policy makers concerning the use and exploitation of the natural resources. The efforts indicated by governments safeguard protection of natural environmental resources to maintain the benefits accrued in terms of financial gains.

Akama (2007) notes that about 10 per cent of Kenya has been set aside for wildlife conservation and the promotion of nature-based tourism. Kenya is one of the leading tourist destinations in Africa with majority tourism based on nature attractions. The beneficial value provided by these resources is what makes them worth negotiating agreements to the point of establishing institutions that can politically manage these resources. Policies and management tools that are appropriate can be used to ensure that natural services are efficiently used and to compensate for the externalities.

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<sup>17</sup> UN Food and Agriculture Organisation. (2016). *The State of World Fisheries and Aquaculture: Contributing to food security and nutrition for all*. Rome.

<sup>18</sup> World Fish Center. (2009). *Fish Supply and Food Security in Africa*. Penang: Consultative Group on International Agricultural Research.

<sup>19</sup> Belhabib, D., Sumaila, U. R., & Pauly, D. (2015). Feeding the poor: Contribution of West African fisheries to employment and food security. *Ocean and Coastal Management*, 11, 72-81.

Undervaluing of natural ecosystems comes from a large part that the contributions they make are not valued for in the financial markets as explained by the Natural Capital theorists.

Contanza (1997) explains that it would be entirely different for the balance of the global economy if ecosystem services were accounted for in the financial markets and were fully paid for. The natural capital theory emphasizes restricting man's impact on the environment, to limit the impact of the effects that are not known. Cox (2016) explains that we could use the market to recompense for the environmental costs, improve human growth while reducing environmental impacts through technology using the theory of environmental economics.

Given the interdependence and interconnectedness of use and conservation of environmental resources, Al-Rodhan (2007) explores how states can mutually benefit from shared resources without deleterious effects. To as such when their survival is threatened, their natural instincts to fight and ensure their survival take precedence. However, when their basic requirements are met they are receptive and moral. However, on the ground, there are few positive socio-economic outcomes. Related financial gains is not yet synonymous with the improvement of livelihoods, poverty reduction, and environmental sustainability.

### **1.7.2 Kenya's Environmental Laws**

In 1963 Kenya gained independence and with it came the sovereignty to manage its national environmental resources. Thus, Kenya entered into a phase between transitioning from the colonial precedence of exploitation and exhaustion to charting a sustainable development path. At that time, sustainable development involved managing the natural resources well enough to provide raw materials for industries and reducing any deleterious impacts. In 1972, the United Nations Conference on the Human Environment held in Stockholm, Sweden from June 5–16 and later the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro, June 3-14, 1992 obligated countries to manage their resources sustainably, initiating the concept of sustainable development and bringing a new order in international environmental laws.

Günther Handl (n.d) writes that both Stockholm Principle 21 and Rio Principle 2 has formed a State's responsibility to ensure that its activities to use or control do not cause damage to the environment of other States or to areas beyond national jurisdiction or control. Environmental laws are enacted inside borders and always as trans-border measures and for many reasons public health and resource protection are amongst the most common. Environmental law strengthens efforts in the realization of development that is environmentally friendly. These legal norms protect the environment<sup>20</sup> and relate to intertwined issues such as pollution prevention and climate change<sup>21</sup>. The norms aim to secure the cooperation of States so as to address collaboratively common problems on protecting the environment.

Barkan (1989) writes about the beginning of this paradigm shift is that in October 1982 former President Daniel Arap Moi announced that Kenya would henceforth allocate its resources for rural development... so as to be more responsive to the 'needs and aspirations of wananchi.' Later, the Constitution of Kenya, 2010 created a decentralized system of government primary objective of decentralization was to devolve power, resources and representation down to the local level. Ngigi (2019) notes that devolution is seen to be the key to unlocking Kenya's economic potential through distribution of responsibilities in the management of environmental resources. Natural resource management has mainly been a State affair and the main contention has been the safeguards put in place to either use or protect the natural resources. These safeguards are identified in environmental laws, policies and institutional frameworks put in place. Over the years, there has been paradigm shifts in the management, conservation and use of the natural resources in Kenya. Jordan (2013) explains that to use and protect its environment according to its own perspectives, interests and geopolitical strategies every State develops its national and even regional policies. Many of these policies are considered 'inherently regulatory', being dominated by law-specific standards because they continue without much consideration of the present challenges.

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<sup>20</sup> Alexander K. 1998

<sup>21</sup> <https://www.hg.org/environ.html>

Schusler, Decker and Pfeffer (2003); and Armitage (2018) explains that the natural resource management (NRM) has shifted away from the traditional to modern; i.e. deterministic, top-down thinking to integrative and participatory approaches. Buzan (1998) proposes that it is .... “the environment itself and the connection of civilization and environment”<sup>22</sup> that are the two referent objects in the environmental sector. He continues that “the maintenance of the local and the planetary biosphere are the essential support system on which all other human enterprises depend,” and that “the environmental sector is “ made complex by its great variety of issues”<sup>23</sup>. No one country can manage these resources by itself, neither does a single country has the capacity to develop its natural resources for sustainable economic development. However, it is hard to determine the actors that should be secured against the environmental threats.

Several scholars such as Sayer and Campbell (2004); Hagmann et al (2002) and German (2012) explain that the Integrative Natural Resource Management (INRM), as a conscious progression that incorporates multiple aspects of resource use into a system that can meet the goals of the resource users, the managers, and other stakeholders. Integrated approaches involving multiple stakeholders while mapping the governance arrangements are increasingly considered. Efforts such as Integrative Natural Resources Management are considered as a bridge to enhance productivity, protect environment and social well- being. It also includes learning which involves multiple stake-holders and wide participatory processes. This has brought about the birth of new and new ways of engaging old stakeholders in a completely new dimension, even creating formal and informal institutions.

States use cooperative solutions to allocated resources and solve conflicts, their relations are enhanced by such collaborations. These collaborations are initiated by the establishment of an agreement through creation of a memorandum of understanding or signing of a multilateral agreement after negotiations between the concerned countries. Some of the Cooperative measures put in place are for example bodies such as the Kenya Marine and Fisheries Research Institute (KMFRI) for Lake Victoria Basin Commission (LVBC) and the Community Based Natural

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<sup>22</sup> ‘Full Text of the Convention, Article 2’. The United Nations Framework Convention on Climate Change. [http://unfccc.int/essential\\_background/convention/background/items/1353.php](http://unfccc.int/essential_background/convention/background/items/1353.php) (accessed on 2<sup>nd</sup> March 2006).

<sup>23</sup> Buzan B. et al. (1998) *Security: A New Framework for Analysis*. London: Lynne Rienner: 5.

Resource Management groups (CBNRM) in the Maasai Mara - Serengeti Ecosystem (MSE) that have been put in place to solve the issue of Kenya and Tanzania shared natural resource of Serengeti- Mara National Park. Collective action and the commons, or the literature on common pool resources emerged during the 1980s and 1990s indicate that sustainable use of natural resources could only be achieved through privatization or centralized management by an external authority.

The state and trend of Africa's environment, and development are largely driven by the region's systems of governance and accountability, among others. African Governments have been important in the emergence of international legal frameworks after which environmental institutions and legislations have been set up. These frameworks are meant to regulate activities having detrimental effects on the environmental resources are regulated under environmental law.

### **1.7.3 Policy Recommendations**

Kenya's legal and institutional framework is robust, taking into consideration most important challenges facing environmental management in a modern state. Daniela (2008) explains that the heart of devolution processes is the transfer and assignment of authority from the Central government to the county governments, a procedure that has been expected to transfer the benefits of these resources to downwardly accountable groups, or as some claim to "empowering" local-level actors. By the trends observed, in addition to affecting economic growth potential, environmental degradation has continued to have massive economic consequences for the majority of the population. Additional pressure on natural resources is added by poverty since these represent the main means of subsistence for the majority of households.

In examining the impact of diverse institutional structures on resource management, commons theorists have also shown that formal and informal institutions impact human behavior. Collective action and the commons emerged during the 1980s and 1990s indicate that sustainable use of natural resources could only be attained through privatization or centralized management by an external authority. The political nature of these institutions is an emerging issue. Consequences of actions of humans allowing specific individuals and groups to reap advantages from altered

social circumstances have given rise to some of these institutions rather than allowing societies as a whole to capture efficiency gains. To curb such actions of some select individuals reaping advantages of the most recent process, devolution, Kenya is putting more efforts in establishing strong institutions. However, it remains that majority do not have secure and permanent access to fertile land and depend basically on the utilization of natural resources or selling of their man power. The victims of and causes of natural resource depletion and environmental degradation are the poor.

Kenya identifies that environmental management, poverty reduction and economic growth are closely linked and thus has played a leadership role in worldwide system to make these issues a global priority. One of the core priorities of Kenya's Foreign Policy 2014 is to take a leadership role in addressing global environmental issues. Among the difficulties of reducing environmental damage is the transnational nature of its impacts. Moreover, damage to the environment is associated to practices that are embedded in the global trade and political economy. Non-state actors contributing to environmental degradation are the hardest to regulate, most notably corporations. Successful regulation of the environment require governance mechanisms agreed multilaterally and in some instances agreed transnation allyas well as similar enforcement mechanisms. In environmental governance, it is important that multilateral solutions are favored over unilateral solutions. For most states, this is likely to be the case given the transnational nature of many policy issues and the futility of trying to address them alone.

States can pursue different combinations of foreign policy strategies at different systemic levels in the practice of international relations. Baldwin (2002) comments that power can be exercised in the formation and maintenance of institutions, through institutions, and within and among institutions. Established regional institutions empower weaker states by constraining the freedom of the regional powers through agreed rules and procedures (Baldwin 2002: 187). The strategic approach of each regional power is a product of its national interests, its relative material and ideational resources. Despite the growing body of international environmental agreements, global environmental conditions have continued to deteriorate (Millennium Ecosystem Assessment 2005; Intergovernmental Panel on Climate



Change 2007). There are a number of explanations for the apparent ineffectiveness of international environmental law and governance yet Governments continue to invest in international conferences often resulting to multilateral agreements.

Sanidas 2018 tests econometrically the importance of neighboring countries' trade with a particular nation and concludes that position of a country in relation to another one may matter much more it appears when we want to determine business and economic performance, and hence trade and economic integration. Kenya success at international environmental laws could be endorsed by success of the East African Community and African Union. This is because Kenya is a major trade partner of East African countries and other countries in Africa. The bulk of trade happens on environmental resources. Bilateral trade agreement confers favored trading status between Kenya and other member States of the East African Community.

## **1.8 Theoretical Framework**

When discussing the theoretical framework for this study, two points come out strongly: a) the desire for international cooperation and, b) the need for a balanced allocation of the pledged fund and balanced division of labor in the pledged obligations.

### **1.8.1 Realist Theory**

Realism is one of the most significant theory in International Relations guiding nations in their pursuits of foreign policy in the international system. The dominant principle of realism is that the international system is an anarchic space without order, nations are guided as unitary balanced actors by exploiting interests based on power politics. In this pursuit states use the mechanisms of power at their disposal to turn the agendas in their favour. To a realist, ethics, moral values and justice have no place in international politics. Realist theory while checking their national interests, may show increasing concern with global poverty, conflicts, health hazards, environmental hazards arising from environmental degradation because of the view that this may increase security threats. At the same time, to a realist in the global negotiations, states are the central actors and will support the environmental laws that serve their national interests such as environmental resources and their use and protection.

### **1.8.2 Constructivism**

Constructivists highlight a shift away from realists and interest-based accounts in shaping positions adopted by nation-states by considering the role of knowledge, norms and values. Of these opinion view cooperation among nations as guided by material and power factors and also by discursive power and ideational elements (Haas et al., 1993; Okereke, 2010). The constructivist accounts point to their position by indicating at the intergovernmental panel on climate change (IPCC) epistemic communities, which continue to shaping the climate agenda, with their periodic scientific assessments. Constructivist scholars focus more on the lengthy and interrelated procedures by which international governance develops (Ruggie, 1998). Alexander Wendt, a prominent constructivist, described the relationship between structures (such as the state) and agents (individuals) as one in which structures not only constrain agents but also construct their identities and interests. Wendt 1992 sums this up well as ‘anarchy is what states make of it’. Another way to explain this, and to explain the core of constructivism, is that the essence of international relations exists in the interactions between people. After all, states do not interact; it is agents of those states, such as politicians and diplomats, who interact when formulation international environmental laws.

### **1.9 Research Methodology**

This section comprises an overview of the methodology that I propose to carry out. This includes the research approach, design of the phenomenological case study and the sample characteristics; data collection procedures and data analysis procedures. This will be followed by issues relating to reliability in qualitative inquiry, before finally addressing the areas of ethical issues that should be upheld throughout the period of the study.

Questionnaire guidelines and interviews will be administered to the policy makers at the concerned ministries and organizations, who are participants in process of environmental laws in Kenya. The tools will be designed and administered in English, which is the official language.

To ensure a desired coverage of the areas of enquiry and comparability of information across respondents through probing, the researcher will use semi structured Interview guides. This is expected to directly address the clients, and an opportunity to enhance their relationship.

Data collection will be done using questionnaire guides which is designed with open-ended questions to help obtain detailed information within the available time. The questionnaires will be designed with clear questions which are easy to understand while offering greater anonymity. The questionnaire can also cover a wide area and many people without bias.

The guide for semi-structured, open-ended expert interviews will be developed, focusing on experts' knowledge and understanding of the state of local ecosystems and human-ecosystem interactions.

### **1.9.1 Research Design**

This section has its rationale in the definition of research design as an arrangement of conditions for collection of, and analysis of data, in such a way that it combines their relationship with the purpose of the research to the economy of the procedures.<sup>24</sup> This is aimed at ensuring that the major parts of the study will work in tandem towards addressing the pertinent research questions,<sup>25</sup> thereby enabling achievement of the desired research objectives with minimal costs and optimum time. The study will utilize a mixed methods approach, with major emphasis on quantitative method.

### **1.9.2 Location of the Study**

Kenya is a country situated in East Africa with a coastline on the Indian Ocean. At 580,367 square kilometres (224,081 sq mi), and is the world's 48th largest country by total area. It encompasses savannah Lakelands, the dramatic Great Rift Valley and mountain highlands. While Kenya is ranked as one of the low-income countries in Africa,

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<sup>24</sup> Chadran E. *Research methods: A quantitative approach with illustration from Christian ministries*. (Nairobi: Daystar University, 2004), p. 23.

<sup>25</sup> Kisilu DK and Tromp DL. *Proposal and Thesis Writing*. (Nairobi: Pauline Publications Africa, 2011).

it is endowed with a wealth of natural and human resources. The growth of Kenya's economy is dependent on natural resources to support people's livelihoods and to contribute to national income. However, Kenya's huge potential for economic growth continue to be threatened by environmental degradation.

### **1.9.3 Sampling Technique**

Survey participants, about 50, were selected by convenience sampling. Dörnyei 2007 notes that convenience sampling is a non-probability sampling technique where participants are determined on certain practical criteria, such as geographical proximity, availability at a given time, or the willingness to participate.<sup>26</sup>

### **1.9.4 Construction of Research Instruments**

The researcher collected data through the use of self-administered questionnaires. The questionnaires were availed to the respondents that make up the sample population. Careful attention has been accorded to eliminate as far as possible the possibility of irrelevance, bias, subjectivity and inaccuracies. Interview schedules or questionnaires were prepared for the purpose of obtaining primary data from the target population.

### **1.9.5 Pilot Study**

The self-administered questionnaires were presented to respondents within the target fields of expertise. Having collected the data, it was analyzed. This enabled the researcher in terms of refining the research instrument with a view to establishing the validity and reliability in inquiry.

### **1.9.6 Validity of Research Instruments**

Reliability, the degree to which a research instrument is able to measure what it is designed to measure, demonstrates the relationship between the test and the behavior it is intended to measure and determines the validity of the research instrument.<sup>27</sup> Accordingly, the researcher commits to

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<sup>26</sup> Dörnyei, Z., & Griffee, D. T. (2007). *Research methods in Applied Linguistics*. New York: Oxford University Press.

<sup>27</sup> Mugenda MO and Mugenda AG. *Research Methods: Quantitative and Qualitative Approaches*. (Nairobi< Kenya: Acts Press, 2005).

remaining intentional on ensuring that the research instruments adopted will be able to measure the variables of diplomacy of international environmental laws and their application and benefits in Kenya.

### **1.9.7 Reliability of the Research Instruments**

Reliability has to do with the extent to which the data collection tools are capable of providing “consistent results with repeated measurements of the same person and with the same instruments.”<sup>28</sup> This study also seeks to ensure that reliability will be sustained by ensuring that “the conditions under which the measurements will take place will be guarded from external sources of variation to the extent possible.”<sup>29</sup> Accordingly, the two sets of research tools will be developed with a focus on adopting correlations between the two sets of respondents, namely leaders and the general population. This will be done with the aim of seeking to establish similarity of results.

### **1.9.8 Data Collection Techniques**

The researcher will obtain a research permit from the relevant body. This is in accordance with the fact that a research permit is an important document as it gives a legal identity to the research being carried out. The researcher will ensure that the respondents work within an environment in which they will not be able to consult with each other as this may compromise objectivity of the study.

### **1.9.9 Delimitations of the Study**

The delimitations of our study will reflect on the boundaries that we have set in view of the constraints that are time bound. We have therefore set certain delimitations or boundaries in consideration of the fact that we do not want our goals to become impossibly large to complete within the time constraints. Accordingly, the delimitations of this study will be informed by, and set within the boundaries of objectives, research questions, variables, theoretical objectives that we have adopted, and the target population.

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<sup>28</sup> Kothari CR. *Research methodology: Methods and techniques*. (New Delhi: New Age International Publishers, 2004). P 75.

<sup>29</sup> Ibid.

### **1.9.10 Limitations of the Study**

Arising from our understanding of limitations as comprising potential weaknesses in our study that are not within our control, our limitations will be determined by questions of limited funding, choice of research design, and statistical model constraints, among others. This study will therefore be limited in terms of not having an advantage as far as time, academic calendar and financial constraints are concerned.

### **1.9.11 Data Analysis Techniques**

The research instruments will be sorted out, summarized and prepared for coding. This will be done within the framework of the definition of data analysis. Analysis requires “computation of certain indices or measures along with searching for patterns of relationships that exist among the data group. It also involves estimating the values of unknown parameters of the sample population and testing of the research hypotheses for the purpose of drawing inferences.”<sup>30</sup> The emphasis here is on ensuring that a thorough examination of the data to be collected. This is necessary as it provides a reliable basis for the subsequent stages of coding, keying in to a computer and finally analyzing. Inferences will then be made with a view to providing answers to the research questions and the hypotheses of this study.

### **1.9.12 Logistical and Ethical Considerations**

Protection of the research participants can never be overstated. Accordingly, this study will proceed on the premise of ensuring that all ethical issues are properly and adequately addressed and upheld. The researcher will also observe decorum and courtesy in the quest for a context that will enable genuine cooperation of the respondents, as well as upholding the confidentiality of the said respondents' identity. This study will also seek to ensure that the data collected will only be used for the purposes stipulated in the research instruments.

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<sup>30</sup> Ibid.

## 1.8 Chapter Outline

This study is divided into the following chapters:

**Chapter one** introduces the topic of the research study, by first setting the broad context of the research study, the research questions, objectives of the study, literature review, theoretical framework, as well as the methodology of the study.

**Chapter two** provides the background the environmental resources Kenya has and their impact and economic bearing on her economic growth and her communities.

**Chapter three** looks at how Kenya goes about installing laws as safeguards to protect the degradation and use of these environmental resources. The chapter delves into the role of Kenya in her leadership in international relations in the international environmental affairs

**Chapter four** identifies the gaps in terms of implementation deficits, unintended (and adverse) impacts in other policy sectors, and consequently chapter five.

**Chapter six** presents the conclusion of the study, provides recommendations as well as giving opinions on further study areas.

## **CHAPTER TWO**

### **IMPACTS OF ENVIRONMENTAL RESOURCES AND THEIR ECONOMIC BEARING ON KENYA**

#### **2.0 Introduction**

This Chapter discusses the environmental resources of Kenya, and how the societies in Kenya rely on them for economic benefits. The section evaluates the impacts of economic activities on the environment in efforts to establish whether economic growth is detrimental or beneficial to the environment in Kenya.

In this Chapter, in the next section following this introduction, I will approach, analyse and discuss the environmental resources as follows: First, I will briefly introduce the environmental resources in Africa and Kenya, then delve into the benefits and the degradation affecting them. Secondly the section that follows discusses the economic valuation of environmental benefits, followed by the gaps identified and finally I conclude this chapter.

#### **2.1 Environmental Goods and Services**

Environmental resources are Africa's richest asset with knowledge of medicinal, agricultural and other properties of the biological resources developed over a long time and harbored by the users. Fresh water and marine and coastal water ecosystems; minerals and energy resources, forests and wildlife, wetlands, rangelands, arable land and mountains, and rich biodiversity are some of the natural resources as found in our environment. Fresh air, climate regulation, cultural identities associated with certain resources among others are some of the Environment services provided by the natural resources. The values gained from direct extractive uses include provision of food for animals, production of timber or the collection of plants. There may also be direct non-extractive uses of biodiversity, such as their importance for recreation or tourism. Indirect uses of environmental resources also include the provision of ecosystem services such as flood control, pest control or protection against erosion. Africa hosts one quarter of the world's 4,700 mammal species, including 79 species of antelope. It also has more than 2,000 species of birds – one fifth of the world's total – and at least 2,000 species of fish, alongside 950 amphibian species. There



are between 40,000 and 60,000 plant species on the Continent and about 100,000 known species of insects, spiders and other arachnids. Eight of the world's 34 biodiversity hotspots are in Africa.

The Government of Kenya in 2016<sup>31</sup> confirmed that environmental resources of Kenya provide the basic support to human economic activities. Biodiversity is a means of livelihoods, a basic resource that fulfills their nutritional and health care needs. In 2017, the Gross Value Product obtained from the environment and natural resources grew by 6.3 per cent. The export sector is anchored on Kenya's mega bio-diversity including: over 35,000 species of flora and fauna. The 467 inland lakes and wetland habitats covering about 2.5% of the total area provide water as a valuable resource. Kenya has high value centers of endemism with many plant and animal species found nowhere else in the world which fuels the tourism industry. In 2017, the total contribution of Travel & Tourism to GDP was KES769.1bn (USD7, 432.9mn), 9.7% of GDP, and is forecast to rise by 5.5% in 2018, and to rise by 5.1% pa to KES1,338.3 bn (USD12,933.6mn), 9.1% of GDP in 2028 with international tourist arrivals totaling to 2,132,000.<sup>32</sup>

Edwards 1998<sup>33</sup> illustrates that an important step in sustaining these conventionally non-valuated resources is, to define them as goods and services which can be quantified in economic terms. The economic value is significant for conservation since they force us to consider all of the benefits which we obtain from wildlife, and not simply those which are tradeable. In the current years, economists have made significant progress in describing the kinds of profits that biological diversity offers, and in coming up with methods for evaluating their value. The projected monetary and environmental benefits from biodiversity, including their genes, are substantial. Kenya's economy is already proven to be reliant on agriculture, water, fisheries, forestry and energy which are all climate-sensitive sectors. Majority of Kenya's population are farmers and pastoralists depending on rain-fed farming. The main employment

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<sup>31</sup> Ministry of Environment and Natural Resources. (2016). *Kenya Strategic Investment Framework for Sustainable Land Management 2017 - 2027*. Nairobi: Government Press.

<sup>32</sup> World Travel and Tourism Council. (2018). *Travel and Tourism Economic Impact 2018: Kenya*. London: WTTC.

<sup>33</sup> Edwards, P. J., & Abivardi, C. (1998). The Value of Biodiversity: Where Ecology and Economy Blend. *Biological Conservation*, Vol. 83(No. 3), pp. 239-246.

sectors are based on the wealth of Kenya resources - agriculture, fisheries, mining, and timber industry are the most productive sectors based on the natural resources.

Freeman 2014<sup>34</sup> explains that the natural resource-environmental complex can be viewed as producing five kinds of service that flow into the economy. First, as in the conservative view of resource economics, fossil fuels, wood products, minerals, water, and fish serve as a resource-environmental system for the source of material inputs to the economy. Second, some constituents of the resource environmental system provide life support services for people in the form of a breathable atmosphere, clean water, and a livable climatic regime. Alterations in the flows of some of these life support services can be evaluated in terms of changes in the health status and life expectancies of affected people. Third, recreation opportunities, observation of wildlife, the come from the resource-environmental system. Fourth, this system separates, converts, and stores the residuals that are generated as economic activities by products, some with negative effects. This is usually referred to as the waste receptor service of the environment and results to beneficial services of environmental resources as discussed in the next section.

### **2.3 Beneficial impact of environmental resources**

Vedeld 2007 estimates that the income of 20–25% of rural people is obtained from environmental resources in developing countries.<sup>35</sup> Langat 2016 writes that forests in Kenya are important in the livelihoods of local people and is so in many other developing countries. Majority of Kenyan people depend on forests resources for various products such as fuel wood, construction materials, medicine, and food.<sup>36</sup> Mutugi 2015 gives an example that the Mau Forest in western Kenya is an important water tower feeding rivers and lakes supporting livelihoods of the over 130 million people in countries of East and Central Africa. Many rivers come from the Mau forest such as the Nzoia, Yala, Nyando,

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<sup>34</sup> III, A. M., Herriges, J. A., & Kling, C. L. (2014). *The Measurement of Environmental and Resource Values* (Third ed.). RFF Press.

<sup>35</sup> P. Vedeld, A. Angelsen, J. Bojö, E. Sjaastad, and G. K. Berg. 2007. *Forest environmental incomes and the rural poor,* " *Forest Policy and Economics*, vol. 9, no. 7, pp. 869–879.

<sup>36</sup> D. K. Langat; E. K. Maranga; A. A. Aboud; and J. K. Cheboiwo. 2016. *Role of Forest Resources to Local Livelihoods: The Case of East; Mau Forest Ecosystem, Kenya.* International Journal of Forestry Research Volume 2016.

Sondu, Mara, Ewaso Nyiro (south), Naishi, Makalia, Nderit, Njoro, Molo and Kerio. These rivers feed important lakes such as Lake Victoria, L. Turkana, L. Natron, L. Nakuru and L. Baringo; the first three of which are cross-boundary between Kenya Uganda-Tanzania; Kenya-Ethiopia and Kenya-Tanzania respectfully.<sup>37</sup>

Tipper, 2002 notes that carbon sequestration projects are increasing in forestry areas in developing countries such as Kenya and are being used to end rural poverty and improve local livelihoods in developing countries. These projects have had a greater economic significance. Raven and Johnson 1992 explain that approximately 250,000 plant species have been described worldwide.<sup>38</sup> As noted by Pimentel 1997, many of these species offer valuable genetic material for some of the most important crop plants for humans.<sup>39</sup> Forests and plants in the environment have over the years provided essential medicines and other diverse products. Some plants even produce microbes to help to degrade chemical pollutants and organic wastes and recycle nutrients throughout the ecosystem. To significant extent natural and semi-natural ecosystems have continuously provided a wide range of so-called ecosystem services which include soil protection, pest control and the supply of clean water and which in the past were thought to have little or no economic significance, Wildlife parks account for 75 percent of Kenya's total tourism earnings. The Mau complex also generates over USD270 million annually from tourism, energy and tea.<sup>40</sup> The financial returns to Kenyan tourism demonstrate the importance of the country's tourist potential to its economic development. Bokea & Ikiara, 2000<sup>41</sup> notes that Kenya has 6% of Lake Victoria's total surface area, which is 69,000 km<sup>2</sup>. Furthermore, Kenya has a marine fishing industry based on her coastline of 640 kms. Fishing is an important source of livelihood for many Kenyans and has been so for many years, even though fishing constitutes only a small portion of Kenya's GDP. First

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<sup>37</sup> Marion Mutugi; Winfred Kiiru 2015. Biodiversity, Local Resource, National Heritage, Regional Concern, and Global Impact: The Case of Mau Forest, Kenya in the Proceedings: 4th International Scientific Forum, (4, 2015; Oxford) / 4<sup>th</sup> International Scientific Forum, ISF 2015, 2-4 September, Oxford, United Kingdom

<sup>38</sup> Raven PH, Johnson GB. 1992. Biology. 3<sup>rd</sup> ed. St. Louis (MO): Mosby-Year book.

<sup>39</sup> David Pimentel; Christa Wilson; Christine McCullum; Rachel Huang; Paulette Dwen; Jessica Flack; Quynh Tran; Tamara Saltman; Barbara Cliff. 1997. Economic and Environmental Benefits of Biodiversity. BioScience, Vol. 47, No. 11. (Dec., 1997), pp. 747-757.

<sup>40</sup> UNEP Annual Report 2009 and Kenya Wildlife Service Annual Report 2008

<sup>41</sup> Bokea, C., & Ikiara, M. (2000). *The Macroeconomy of the Export Fishing Industry in Lake Victoria (Kenya)*. Nairobi: IUCN.

and foremost, fish is an significant source of animal protein. Commercial and sport fisheries represent the largest share of the harvested wild biota. Lake Victoria is the most productive freshwater fishery in the world with annual fish yields in excess of 500,000 tonnes of fish that is worth \$600 million annually in the global market. The Nile perch export business has expanded significantly over the years into a lucrative external trade transforming the artisanal fishery into an unprecedented inflow of national and international capita. Nyamwaya 2013<sup>42</sup> lists that the minerals found in Kenya include; Oil in Turkana; Natural gas; Soda ash in Magadi; Diatomite; Coal; Gemstones in Coastal region; Gold in Migori and kakamega; Limestone; Aggregate and sand. Minerals mining is gaining traction in Kenya's economy and currently contributing 1% of the GDP. The economic activities associated with using the environmental resources have been associated with detrimental impacts on the resources as well as on health and welfare of societies as described in the next section.

#### **2.4 Detrimental impacts on Environmental Resources**

Natural resources are disappearing at an unprecedented rate from degradation, over-extraction, over-harvesting, biodiversity loss and illegal and illicit trade, among others. Other impacts of human induced activities on the environment include pollution and other activities such as infrastructural developments, agriculture and climate change. These impacts and activities are outstripping the natural ability of environmental resources to regenerate. There has been a inclination to brush aside the wider values of the economic benefits of environmental resources, concentrating on the easy access benefits. By doing this, a large part of the value of environmental resources has been omitted, and a large part of the economic costs of environmental degradation ignored. If Kenya's environment is conserved as a whole, it can offer economic benefits and at the same time support human production and consumption.

Renner (2004) and Gleditsch (1999) propose that the quality of life for the people of a state has been proved to be challenged by the degradation of ecosystems, fostering an unstable environment. They also suggest that "where there is environmental degradation, or acute scarcity of resources,

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<sup>42</sup> Nyamwaya, C. (2013). *Benefits Sharing on Extractive Natural Resources with Society in Kenya*. Nairobi: Friedrich Ebert Stiftung.

war may follow”. Hauge and Ellingsen (1998) write that environmental degradation is a potential cause of intra-state conflict and give examples whereby deforestation, soil erosion and a lack of fresh water has contributed to violence, mostly over the use of these most needed but remaining little resources. Boulding (1966); Paul-Gilding (2011); Donella (1972); Schulze-Makuch (2015) expound how limited the environmental resources are. There have been several cases of complete exhaustion of an environmental resource that was being used as raw material to fuel industries. The natural resources are limited and becoming increasingly few as have been described by several scholars over time. In his essay in 1966 on ‘The Economics of the Coming Spaceship Earth’ Boulding refers to ‘spaceship Earth’ describing it as having its own physical limits.<sup>43</sup> Human society has passed the limits of the planet’s capacity to support humanity and their economies and it is overflowing and the Earth’s growing population has a finite supply of resources. The physical, chemical and physiological limits Earth has to support life or support the conditions that support life have been exacerbated by the ever-rising demand to support livelihoods. For example, over the next 40 years’ demand for fresh water is estimated to rise by 50%, demand for food to 70%, and demand for energy will nearly double – all in the same period that threats such as climate change, depletion of rivers and aquifers, and deforestation continue to increase.

Mulinge 2016 explains that many challenges including soil erosion, low productivity, agrobiodiversity loss, and soil nutrient depletion constrain the growth of agricultural output in Kenya. Using land without the proper compensating investments in soil and water conservation has led to increased land degradation. When the land is severely degraded, it results to loss of rural livelihoods, lack water supplies and destruction of the wildlife habitat. The Mau Forest, one of the important Kenya’s water towers, has been systematically ruined in the last 15 years resulting to upsetting the balance of usually a delicate ecological balance as the diversity of fauna and flora is dies. It is more than 46,000 hectares of the Mau forest that has been cut off for human settlement and private agriculture. The has caused massive encroachment by human populations, charcoal production and the logging of indigenous trees resulting to massive deforestation, and severe impacts on water resources, leading to national water shortages.

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<sup>43</sup> Kenneth E. Boulding, 1966. The Economics of the Coming Spaceship Earth.

Wilson (2006) and David (2002) describe that human activities such as dynamiting of reefs, overfishing and from climate change such as outbreaks of disease<sup>44</sup>, bleaching from the warmer sea temperatures and higher concentrations of dissolved carbon dioxide resulting from human-induced atmospheric emissions are threatening the diversity of corals and killing them.<sup>45</sup> This makes them inhabitable and not able to support any fisheries or other marine life. Kenya has lost between 66% and 80% of their live corals. The impact of destroying the coral reefs is altering the structure of reef associated fisheries and eventually robbing the fishing communities that depend on fisheries of their source of income.

Dallimer 2016 explains that there has been massive loss of soil fertility through “soil nutrient mining”, rangeland degradation, wind and water erosion of the soils, deforestation and desertification. Degradation of the soils in Kenya have affected the ability of the land to support farming and farmers. At the same time, pastoralist communities and traders’ activities remove previous tree cover for use as fuel and fodder, heavily altering the wildlife diversity. When the land is used for long time without any changes, the natural vegetation cover gets sparse resulting to exposure to consequent soil erosion and subsequent disasters such as floods and landslides.

Several authors, Geheb (1995); Omiti et al (2002); Duraiappah (1998); and Emerton (2001) note that human socio-economic status and national economic growth is adversely affected by degradation of environmental resources. With poor economic performance, leads to absolute poverty, which means that people are living without adequate food and nutrition, and inadequate access to basic services – safe water, decent housing, education and health facilities. 28 percent of Africa’s disease burden can be traced back to environmental risks adversely affecting human wellbeing and health.<sup>46</sup> About 60 percent of Africa’s population is considered vulnerable and exposed to waterborne diseases such as cholera, dengue fever, malaria among others.<sup>47</sup> The

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<sup>44</sup> Wilson, S. K., Graham, N. A., Pratchett, M. S., Jones, G. P., & Polunin, N. V. (2006). Multiple disturbances and the global degradation of coral reefs: are reef fishes at risk or resilient? *Global Change Biology*, 12, 2220-2234. doi:doi:10.1111/j.1365-2486.2006.01252.x

<sup>45</sup> David, O., Jacqueline, U., Omondi, W., & Shaaban, M. (2002). Kenya, Reef Status and Ecology.

<sup>46</sup> United Nations Environment Programme. (2013). Chapter 1: Purpose, assessment process and key messages in Africa Environment Outlook 3: Our Environment, Our Health (Aeo-3). London, United Kingdom: Earthscan Publications Ltd.

<sup>47</sup> United Nations - Habitat. (2011). UN-Habitat Annual Report 2010. Nairobi: UN Habitat.

outcome of these environmental losses has driven the African nations to develop laws that govern environmental management.

## **2.5 Economic Valuation of Environmental resources**

Emerton, Karanja, & Gichere (2001) writes that valuation of environmental services has proven difficult over the times. Currently, the official data accounts for the formal sector marketed outputs. However, it is clear to note that much of Kenya's economic activities occurs in the informal sector within rural communities, within the household or through the jua kali sector and not so much in the formal regulated markets. Freeman III (2014) writes that measures of values that are based on the preferences of individuals are analyzed by economists. Economists and decision-makers value environmental resources in terms of the direct uses they support – such as the raw materials provided for human production and consumption. These models should be internally consistent and be based on accepted theories of preferences, choice, and economic interactions when value measures are derived using models of behavior. Alterations in environmental quality can affect communities' welfares through a number of ways such as: variations in the prices paid for goods bought in markets; fluctuations in the quantities or qualities of non-marketed goods changes in the prices received for factors of production; and changes in the risks individuals face. If these would be sufficiently regulated and thus valued, they could make sustainable incomes for local communities.

## **2.6 Gaps in utilizing the environmental resources**

The future challenge for Kenya remains to achieve economic growth and to generate employment and income at the same time conserving her natural resource base. Kenya has made tremendous efforts in adopting significant commitments towards sustaining natural resources through several international agreements. However, tackling issues such as the most pressing threat of land degradation in a coordinated approach across stakeholders and all sectors remains inadequate. The literature above indicates a broken co-ordination between state and non-state players resulting to duplication of efforts especially in collating data for informing policies; there lacks clear established conditions that would facilitate non-state actors to influence fiscal policies focused on poverty alleviation. There are several recommendations from several authors

that some existing government institutions and structures and secretariats should be reformed to harmonize the activities of institutions involved in poverty alleviation at the local/grassroots level, this is yet to be accomplished.

Duraiappah (1998) explains on the important role institutional and market failure play in encouraging agents from various income groups to exhibit unsustainable activities which in turn forces some of the agents to fall into poverty. While environmental resources are considered important, they are not economically valued and their data is still absent in some cases or scattered where available. Other factors include a lack of regulation, environmental products are not properly valued and their control and regulation left to local communities. This has exacerbated the weak linkages among organizations working towards poverty eradication. Again, sectoral collaboration among institutions remains inadequate. This is further complicated by duplication of efforts in various sectors, making it difficult for institutions to interconnect their activities. On the other hand, weak physical infrastructure, ineffective networking within their areas of operation, weak management structures make the institutions lack requisite capacities thus imposing ideas on the communities rather than deriving development strategies from them. Inter-conflicts between different agents (income groups) in the poverty-environmental degradation nexus have made the implementation of environmental policies and laws much more difficult and ineffective when done.

## **2.7 Conclusion**

The environmental resources benefits are valued as raw materials for industrial processes; others are valued as food and cash crops and others give benefits in a secondary way and may not be assigned an economic value such as regulation of climate, prevention of soil erosion among others; others benefits may only be noticed when they are absent such as wildlife. There have been tremendous gains from relying on the environmental resources, yet the activities associated with using them have resulted to their degradation. This has caused policy makers and scientists come together to deliberate on assigning a value that would help in protecting these resources. However, even for the resources that have been assigned economic values, they continue to be affected negatively. The negative impacts have affected societies causing poor health, in some case



fatalities. Furthermore, the impacts of activities within one border are now felt across boundaries, e.g. air pollution and acidic rain causing this to be a multilateral problem and no longer confined to societies living close to that environmental resources. As the degradation of environmental resources phenomenon continues, it has raised the question on what environmental laws a country is putting in place.

## CHAPTER THREE

### KENYA'S ENVIRONMENTAL LAWS

#### 3.0 Introduction

The presence of the abundant natural capital wealth, environmental losses and associated pressures from both internal and external economic and political forces have shaped the development of the environmental laws in the World and particularly, Kenya. The Environmental agreements articulate the agreed international approaches proposed and agreed upon to address the environmental challenges. The environmental laws are seen as a tool for facilitating the transformation towards poverty elimination and sustainable development.

This Chapter discusses the content and trends of environmental laws and institutions at national, regional, continental and transboundary levels. I analyse the environmental laws that Kenya has installed and adopted at international and domestic levels. I also analyse the institutions at national, regional, continental and transboundary levels associated with the environmental laws. In addition, the paper also analyses the Multilateral Environmental Agreements (MEAs) and the judiciary in the development of environmental law and jurisprudence in Kenya.

Kenya has been flaunted as the 'Land of Splendor', because of its rich historical background, pleasant climate, diverse people, great diversity of physical features and magnificent wilderness areas.<sup>48</sup> More recently, it has been acclaimed as a model for environmental progress in the region following enactment of the 2010 Constitution which encompasses specific measures for environmental management.<sup>49</sup> The function of any constitution is to guarantee basic human rights and provide guiding principles for the country. Kenya signals unwavering environmental commitment when it entrenched environmental rights and environmental conservation principles in the new constitution. The Kenya Environmental law describes the legal rules in Kenya relating to the environment, and more broadly the social, economic, philosophical and jurisprudential

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<sup>48</sup> Kimani, N. N. (2010). Participatory aspirations of environmental governance in East Africa. *Law Env't & Dev. J.*, 6, 200.

<sup>49</sup> J Walljasper, Looking South for Environmental Progress, <<http://onthecommons.org/looking-south-environmental-progress>> (2010).

issues raised by attempts to protect, conserve and reduce the impacts of human activity on the Kenyan environment.

### **3.1 History**

The recorded history of the division of environmental resources of Kenya can be traced back to the colonial history of Kenya during the Berlin Conference in 1885, when East Africa was first divided into territories of influence by the European powers. The records of environmental resources and their use become available when the British Government founded the East African Protectorate in 1895 opening up the region to exploitation and trade. Natural resources were managed principally to serve imperial markets, while colonial administrations propagated new discourses and practices for the utilitarian and instrumental management of nature. Indifferent administration by overseas imperial powers transparently sought to enrich their home country with little to no thought about the long term environmental or political consequences for the colony.

Kameri-Mbote, 1997<sup>50</sup> explains that the colonial powers had a general effect of removing large tracts of land from people's control, which in turn had created a decreasing sense of trusteeship and a reduction in the sense of equity in the management of natural resources. The colonial 'command-and-control' legislation<sup>51</sup> facilitated continued environmental degradation in the post-independence era. Critical environmental crises increased in frequency and magnitude including deforestation, pollution, and over extraction.

Faure and Plessis<sup>52</sup> writes that the new challenges arising from mining and oil production, for example, or the influx of multinational corporations exploiting their natural wealth could not be addressed by pre-independent laws because they were outdated. The main challenge facing Kenya

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<sup>50</sup>Kameri-Mbote, P., & Cullet, P. (1997). Law, colonialism and environmental management in Africa. *Review of European Community and International Environment Law*, 6(1), 23 -31.

<sup>51</sup>An introduction to the African Convention on the Conservation of Nature and Natural Resources. (2004). Gland, Switzerland and Cambridge, UK: International Union for Conservation of Nature - World Conservation Union Law Centre.

<sup>52</sup> Faure, M., & Plessis, W. d. (Eds.). (2011). *The balancing of interests in environmental law in Africa*. Pretoria: Pretoria University Law Press.

was to rid herself of the colonial laws governing her natural resources which was focused on extraction. The other challenge that was growing rapidly was to satisfy the needs of her rapidly growing population. Increased population growth forced people to adapt unsustainable environmental management practices. The regulatory framework governing access to natural resources increases the capacity of African people to solve their environmental problems.

So Kenya set off implementing changes to its regulatory framework for the environmental resources. Faure and Plessis<sup>53</sup> explains that how various authorities can appropriately balance the interests involved in environmental protection measures is one of the crucial issues in environmental law in any legal system is. This is such a problematic issue because ecological interests and values do not have an absolute protection from the legal system. This is also different from other interests such as human health, life or property, which were traditionally protected by the (mostly criminal) law.

In Kenya historically, policy making and the whole planning process has tended to fall short of the expectations. There was no comprehensive environmental policy. The country's first two development plans for the period between 1965 and 1974 had no mention of an environmental policy. In the 20<sup>th</sup> Century, the government began the implementation of the Structural Adjustment Programs. The helped the government increase efforts to strengthen institutions tasked with the responsibility of assessing and monitoring environmental changes that are likely to have damaging effects in the future.

The enactment of the Environmental Management and Coordination Act (EMCA) No 8 of 1999 that served as the main framework for environmental law was among the first steps in the commitment towards environmental sustenance. This also made Kenya join 42 countries that have implemented National Environmental Governance Structure. Before then, several laws existed but scattered in various laws and statutes administered by various ministries. Environmental law in Kenya encompasses the rules and doctrines arising from

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<sup>53</sup> ibid

common law, provisions of constitutions, statutes, general principles and treaties that deal with protection, management and utilization of natural resources.

The aims of environmental law are: -

**a) To facilitate environmental management** by offering a set of rules and regulations for environmental conservation and preservation. In enabling environmental management, we get to know how institutions for environmental management are created, the way rules are created in order to resolve environmental conflicts, and learn what are the acceptable standards of conduct and behavior when interacting with the environment.

**b) To facilitate sustainable development:**

During the industrial revolution, when the environmental degradation started impacting on the health of general populace, there arose localized regulations to protect to control water pollution. These occurrences led to growth of national laws when in the 1960s countries saw the need to enact specific laws to regulate the environment. This led to Environmental law as we know of it today.

There are several sectoral Acts of Parliament and Policies in Kenya related to the use, management and development of its environmental resources as outlined below:

**Environmental Management and Coordination Act, 2015**

This act commenced in 2000 and was later amended in 2015. It offers the establishment of an appropriate legal and institutional framework for the management of the environment and for the connected sectors and underscores the need for integration in the management of the environment and its components in Kenya.

**Fisheries Management and Development (2016):** is an Act of Parliament that provides for the conservation, management and development of fisheries and other aquatic resources. This aims to enhance the livelihood of communities that are dependent on fishing and also established the Kenya Fisheries Services.

**Forest Conservation and Management (2016):** this is an act of Parliament that seeks to give effect to Article 69 of the Constitution with regard to forest resources and to provide for the development and sustainable management, including conservation and rational utilization of all forest resources for the socio-economic development of the country.

**Ewaso Ng'iro North River Basin Development Authority (1989):** is an Act of Parliament that established the Authority that plans and co-ordinates the implementation of development projects in the Ewaso Ng'iro North River Basin and catchment areas and for connected purposes. The Ewaso Ng'iro plays an important role in the ecology across Kenya in several regions: Isiolo, Laikipia, Samburu, Marsabit, Wajir, Garissa, and Mandera, Nyandarua, Nyeri and Meru.

**Environment and Land Court (2011)** is an Act of Parliament that seeks to give effect to Article 162 (2) (b) of the Constitution; and established the superior court that seeks to hear and determine disputes relating to the environment and the use and occupation of, and title to, land, and to make provision for its jurisdiction functions and powers, and for connected purposes.

**Coast Development Authority (1990)** is a Act of Parliament that provides for the establishment of an Authority that seeks to plan and co-ordinate the implementation of development projects in whole of the Coast Province and the exclusive economic zone and for connected purposes.

**Climate Change (2016)** is an Act of Parliament that provides for a regulatory framework that aims for enhanced response to climate change; and provides for mechanism and measures to achieve low carbon climate development, and for connected purposes.

**Biosafety (2009)** is an Act of Parliament that seeks to regulate activities in genetically modified organisms, and established the National Biosafety Authority.

**Agriculture and Food Authority (2013)** is an act of Parliament that provides for the consolidation of the laws on the regulation and promotion of agriculture. It also provides for the establishment of the Agriculture and Food Authority, making provision for the respective roles of the national and county governments in agriculture, excluding livestock and related matters.

**National Drought Management Authority (2016)** is an Act of Parliament that established the National Drought Management Authority. This authority exercises overall coordination over matters related to drought management including implementation of policies and programmes.

**Maritime Zones (1989)** is an Act of Parliament that consolidates laws related to the territorial waters and the continental shelf of Kenya; and established the delimitation of the exclusive economic zone of Kenya. The Act also provides for the exploration and exploitation and conservation and management of the resources of the maritime zones.

**Lake Basin Development Authority (1991)** is an Act of Parliament that establishes the Authority to plan and co-ordinate the implementation of development projects in the Lake Victoria catchment area.

### **3.2 Trend**

Kenya's environmental law regime was characterized by the existence of a variety of sectoral laws dealing with specific issues related to environmental conservation, improvement and protection. The lead agencies such as the National Environmental Management Authority (NEMA), Kenya Wildlife Service, Kenya Parks Service, and the Water Regulation Management Authority, have the legislative tools that they need to adequately protect and conserve the environment of Kenya, ensuring a clean and healthy environment for all citizens.

The promulgation of a new Constitution in August 2010 signifies a paradigm shift in so far as the implementation of environmental rights is concerned. Kenya's legal and institutional framework is fairly robust and addresses many of the most important challenges facing environmental management in a modern state. As such, Kenya is now better positioned to manage its environment in a more effective manner. The desire for the new constitution took several years and a lot of efforts.<sup>54</sup> The new Constitution brought about comprehensive provisions on environmental management thus more superior to the previous constitution and allowing for Kenya to make more gains in protecting her environmental resources.

### 3.3 Present

Framework environmental laws and sectoral statutes on diverse aspects of the environment and natural resource management at the national level complement international treaties. Many African countries have signed international treaties governing the environment and natural resources and have constitutional provisions on environmental law. The biggest obstacles is the implementation and enforcement of existing laws and a lack of coordinated cooperation between ministries.

Forests in Kenya are not unique in their contribution to environmental balance, as well as economic and socio-cultural functions. Nonetheless, they are victim to increasing demand for products and services, competition with other land uses, and poor governance.<sup>55</sup> Kenya's present forest cover is equivalent to 5.9 per cent of land area,<sup>56</sup> which is inadequate for it to significantly contribute to the national economy while fulfilling its environmental and socio-cultural functions. Kenya Forest Services, in its Strategic Plan 2009-2013, proposes to sustainably manage the forests through the combined use of ecological, economic and social approaches, guided by the Forest Act No. 7 of 2005, and in cooperation with the relevant institutions, including the Ministry of Forestry and Wildlife.<sup>57</sup> Article 69 (b) of the new constitution

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<sup>54</sup> B Namunane and A Shiundu, 'Kibaki List: MPs Slam Door on Budget Boss', *Daily Nation*, 16 February 2011, page 1.

<sup>55</sup> Mwenda, A., & Kibutu, T. N. (2012). Implications of the new constitution on environmental management in Kenya. *Law Env't & Dev. J.*, 8, 76.

<sup>56</sup> Kenya Forest Service, Strategic Plan 2009-2013 14 (Nairobi: Kenya Forest Service, 2009).

<sup>57</sup> Kenya Forest Service, Strategic Plan 2009-2013 16-18 (Nairobi: Kenya Forest Service, 2009).



states that ‘*The State shall work to achieve and maintain a tree cover of at least ten per cent of the land area of Kenya*’<sup>58</sup> and thereby recognizes the role required of the State and its organs, including the Ministry of Forestry and Wildlife, and the Kenya Forest Service, to ensure increased forest cover.

Modern scientific knowledge has been credited with the destruction of complex ecological systems, in part due to its separation of humans from the natural world.<sup>59</sup> This emphasis on scientific knowledge has also led to a disdain for the experiential knowledge of people who live and work in an area, referred to as ‘tradition, indigenous or local’ knowledge.<sup>60</sup> In Kenya, a significant segment of the national population has continued to depend on natural resources for their sustenance and livelihood,<sup>61</sup> resulting in a significant amount of indigenous knowledge.

### **3.3.1 The Constitution**

As the supreme law in Kenya, other laws are enacted in accordance, in principles and values embodied here. The Constitution recognizes in the Preamble, the need for the protection of the environment and provides for, “.....We, the people of Kenya..., respectful of the environment, which is our heritage, and determined to sustain it for the benefit of future generations...” Article 42 guarantees every person the right to a clean and healthy environment, which includes two fundamental rights as: (a) through legislative and other measures to have the environment protected for the benefit of present and future generations, particularly those contemplated in Article 69; and (b) to have obligations relating to the environment fulfilled under Article 70.

To cater for any of the violations that may occur, Article 70(1) deals with the enforcement of environmental rights stating that, “If a person alleges that a right to a clean and healthy

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58 See Kenya, note **Error! Bookmark not defined.** above.

59 B Mitchell, *Resource and Environmental Management* 210 (Essex: Pearson Education Ltd, 2002).

60 Ibid.

61 C Gatundu, *Policy and Legislative Framework for Community Based Natural Resource Management in Kenya: A Review of Existing and Proposed Laws and Policies*, 1 (Nairobi: Forest Action Network, 2003), PM Maundu, GW Ngugi and CHS Kabuye, *Traditional Food Plants of Kenya*, 1 (Nairobi: National Museums of Kenya, 1999) and Republic of Kenya, *Kenya Vision 2030* 13 (Nairobi: Government Printer, 2007).

environment recognized and protected under Article 42 has been, is being or is likely to be, denied, violated, infringed or threatened, the person may apply to court for redress in addition to any other legal remedies that are available in respect to the same matter.” This provision is deliberately wide in scope to ensure that any infringement of environmental rights, whether present or threatened is squarely dealt with. In addition, it also recognizes the legal remedies and includes any other additional remedy. There has been an increasing number of disputes escalated to the legal system and to facilitate their efficient redress, the Constitution established a specialized environment court – the Environmental and Land Court. This has been hailed as a first move by Kenya in Africa.

Both the individual and the state obligations are catered for in Article 69. First, the obligation of state is to ensure sustainable exploitation, utilization, management and conservation of the environment and natural resources for the industrial activities in the country. It also ensures the equitable sharing of the accruing benefits among the communities; and at the same time facilitate public participation to manage, conserve and protect the environment. The government is also responsible for establishing systems of environmental impact assessment, audit and monitoring of the environment; and also establish systems to eliminate processes and activities likely to endanger the environment; and ensure that the resources benefit of the people of Kenya.

Article 10 further provides for the public participation as one of the principles and values by establishing the system for monitoring and evaluation and engaging community participation. Before enacting legislation, the Constitution requires parliament to seek the input of the public. Previously, no public input was necessary for a legislation to be enacted. Establishing the devolved system of governance has offered every citizen an opportunity to participate in governance process including environmental governance.

### **Environment as a Right**

Africa as a whole was the first continent to introduce an environmental right, in article 24 of the African Charter of Human and Peoples’ Rights in 1981. Environmental decision-making involves delicate balancing, featuring a three-part dilemma over how (a) to maintain environmental integrity; (b) while reasonably meeting socio-economic needs including food security and poverty mitigation; and (c) reasonably facilitating the business

and industry necessary for economic progress and prosperity. environmental rights mean access to the unspoiled natural resources that enable survival, including land, shelter, food, water and air. They also include more purely ecological rights, including the right for a certain beetle to survive or the right for an individual to enjoy an unspoiled landscape.

### 3.4 Genetic Resources and Biological Diversity

The National Biodiversity Strategy and Action Plan (NBSAP) was established after Kenya ratified the Convention on Biological Diversity (CBD) in 1994.<sup>62</sup> Kenya's biological resources are diverse, with 80 per cent of the population depending on them for livelihood,<sup>63</sup> yet management of these resources is weak. Inadequate information on the non-consumptive values of resources is lacking, there is limited access to biodiversity data and information, and low levels of adoption of new technologies, including biotechnology. Consequently, plant and animal species are overexploited, resulting in genetic erosion and endangering of rare species. The Ministry of Environment and Mineral Resources is currently charged with coordination of all environmental matters in the country. Through Article 69 (e) of the new constitution which states '*The State shall protect genetic resources and biological diversity*',<sup>64</sup> it is expected that the State will work with its agencies and in this case the Ministry, to protect genetic resources and biological diversity.

### 3.5 International Laws

At the time of gaining independence in the 1960s, the United Nations General Assembly adopted the '1960 Declaration on the Granting of Independence to Colonial Countries and Peoples'.<sup>65</sup> The resolution provided for the granting of independence to colonial countries and peoples and was a step further in affirmation to the newly independent

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<sup>62</sup> Ministry of Environment & Natural Resources, *A Summary of the Kenya National Biodiversity Strategy and Action Plan 1* (Nairobi: The National Environment Secretariat, 2000).

<sup>63</sup> Ministry of Environment & Natural Resources, *A Summary of the Kenya National Biodiversity Strategy and Action Plan 7* (Nairobi: The National Environment Secretariat, 2000).

<sup>64</sup> See Kenya, note [Error! Bookmark not defined.](#) above.

<sup>65</sup> Declaration on the Granting of Independence to Colonial Countries and Peoples A/RES/1514(XV). (1960). General Assembly Resolution 1514 (XV) of 14 December 1960. UN General Assembly.

States of their rights to take full control over their natural resources. Its preamble affirms, “that people may, for their own ends, freely dispose of their natural wealth and resources without prejudice to any obligations arising out of international economic co-operation based upon the principle of mutual benefit and international law.”<sup>66</sup> In the said convention, land resources in Africa were to be held, managed and used primarily as commons.<sup>67</sup> Kibugi<sup>68</sup> explains that International environmental law codifies sustainable development as a legal concept. International Environmental Law (IEL) is concerned with the attempt to control pollution and the depletion of natural resources within a framework of sustainable development. It is a branch of public international law - a body of law created by states for states to govern problems that arise between states. IEL covers topics such as population, biodiversity, climate change, ozone depletion, toxic and hazardous substances, air, land, sea and transboundary water pollution, conservation of marine resources, desertification, and nuclear damage<sup>69</sup>.

### 3.5.1 Multilateral Environmental Agreements of Kenya

Some of the main Multilateral Environmental Agreements that Kenya is party to include:

**United Nations Convention on the Law of the Sea (1982):** Popularly known as UNCLOS, the Law of the Sea Convention or the Law of the Sea treaty, this international agreement defines the rights and responsibilities of nations with respect to their use of the world's oceans, establishing guidelines for businesses, the environment, and the management of marine natural resources.

**Convention on the Conservation and Management Measures of High Seas Resources:** This agreement promotes compliance with international conservation and management measures by fishing vessels on the high seas. The agreement applies to all fishing vessels used or intended for fishing in the high seas.

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66 Preamble of the Declaration on the Granting of Independence to Colonial Countries and Peoples A/RES/1514(XV). (1960). General Assembly resolution 1514 (XV) of 14 December 1960. UN general Assembly.

67 Ogendo, H. O. (2003). The Tragic African Commons: The Expropriation, Suppression and Subversion. *University of Nairobi Law Journal*, 1.

68 Kibugi, R. (2011). Development and the balancing of interests in Kenya. In M. Faure, & W. d. Plessis (Eds.), *The balancing of interests in environmental law in Africa*. Pretoria University Law Press

69 Brown Weiss, *Public International Law: International Environmental Law* (The University of Melbourne, 2017) 23.

**The African Convention for the Conservation of Nature & Natural Resources (Algiers, 1968):** This convention encourages conservation, utilization and development of soil, water, flora and fauna for the present and future welfare of mankind, from an economic, nutritional, scientific, educational, cultural and aesthetic point of view.

**Convention on International Trade in Endangered species of Wild Fauna & Flora (Washington, 1973):** The Convention regulates international trade in endangered wild animals and plants. This Convention covers animals and plants, whether dead or alive, and any recognizable parts or derivatives thereof (art. 1).

**Lusaka Agreement on Cooperative Enforcement Operations Directed at Illegal Trade in Wild Fauna & Flora (1994):** The objective of this agreement is to support member states to reduce and ultimately eliminate illegal trade in wild fauna and flora. Parties have adopted and enforced measures with a view to investigating and prosecuting cases of illegal trade, to co-operate with one another and with the Task Force, to provide the latter with relevant information and scientific data, and to encourage reporting of illegal trade by the public.

**Convention on the Continental Shelf (Geneva 1958):** This convention supports Kenya in defining and delimiting her rights to explore and exploit the natural resources of the continental shelf. The convention gives Kenya sovereign and exclusive rights over the continental shelf for the purpose of exploration and exploitation (art. 1). Such exploration or exploitation must not cause unjustifiable interference with navigation, fishing or the conservation of the living resources of the sea, or with oceanographic or other scientific research (art. 5).

**Convention of the High Seas (Geneva 1958):** States undertake to draw up regulations to prevent pollution of the sea by oil from ships and pipelines or resulting from the exploration and exploitation of the seabed (art. 24). They further agree to take measures to prevent pollution of the sea by dumping of radioactive waste and to cooperate with international agencies in taking such measures to prevent pollution of the seas or airspace above them resulting from radioactive materials or other harmful agents (art. 25).

**The Ramsar Convention on Wetlands of International Importance (1971):** The objective of the Convention is to stem the progressive encroachment on and loss of wetlands. Each Contracting Party agrees to designate at least one national wetland for inclusion in a List of Wetlands of International Importance (art.2.1), and to consider its international responsibility for the conservation, management, wise use of migratory stocks of wildfowl when modifying the content of the List (art.2.6). Contracting Parties undertake to establish nature reserves in order to conserve wetland resources and to increase waterfowl populations through management. Parties further agree to co-operate in the exchange of information as well as in the implementation of the Convention, especially in the case of wetland extending over the territories of more than one Contracting Party, and to train personnel competent in the fields of wetland management and research (art. 4 and 5).

**International Convention for Prevention of Pollution from Ships (MARPOL):** MARPOL is the main international convention covering prevention of pollution of the marine environment by ships from operational or accidental causes. The Convention includes regulations aimed at preventing and minimizing pollution from ships - both accidental pollution and that from routine operations - and currently includes six technical Annexes. Special Areas with strict controls on operational discharges are included in most Annexes.

**The Paris Agreement:** The Paris Agreement's central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. Additionally, the agreement aims to strengthen the ability of countries to deal with the impacts of climate change.

**Convention on Biological Biodiversity (1992):** This Convention supports Kenya to conserve biological diversity, promote the sustainable use of its components, and encourage equitable sharing of the benefits arising out of the utilization of genetic resources. Such equitable sharing includes appropriate access to genetic resources, as well as appropriate transfer of technology, considering existing rights over such resources and such technology.

The Convention places a duty on States Parties to conserve biological diversity within their jurisdiction, as well as outside their jurisdiction in certain cases (art. 4); requires States to cooperate in preserving biological diversity in areas out of national jurisdiction (art. 5); conferring responsibility on States Parties for the formulation and implementation of strategies, plans or programmes for the conservation and sustainable use of biological diversity (art. 6).

**2030 Agenda for Sustainable Development;** The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future.

**Bamako Convention on the ban of the import into Africa and the control of transboundary movement and management of hazardous wastes within Africa (1991)** defines the roles African governments with regard to the transport and disposal of hazardous wastes and bans the importation into, and the transit through, their territory, of hazardous wastes and substances for human health and environmental reasons. The convention recognizes the damage to human health and the environment caused by transboundary movements of hazardous wastes.

**Convention of the African Energy Commission, 2001** recognizes the enormous conventional energy potential as well as vast deposits of new and renewable energy resources. It supports the development of the use of energy to promote and support rapid economic and social development, eradication of poverty, combat desertification and improve the standard and quality of life throughout the Member States.

**Convention for the Establishment of the Lake Victoria Fisheries Organization (1998)** recognize the lake as a transboundary resource and that the cooperation of the countries that share the lake is necessary for the rational management and sustainability of those living resources for the benefit of present and future generations.

**International Convention for the Prevention of Pollution of the Sea by Oil, 1954:** seeks to take action by common agreement by countries to prevent pollution of the sea by oil discharged from ships.

**Convention on the Conservation of Migratory Species of Wild Animals, 1979:** recognize that wild animals in their innumerable forms are an irreplaceable part of the earth's natural system which must be conserved for the good of mankind.

**Vienna Convention for The Protection of Ozone Layer, 1985:** determines that the contracting parties protect human health and the environment against adverse effects resulting from modifications of the ozone layer.

**Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, 1989** recognizes the growing threat to human health and the environment posed by the increased generation and complexity, and transboundary movement of hazardous wastes and other wastes and requires that States should take necessary measures to ensure that the management of hazardous wastes and other wastes including their transboundary movement and disposal is consistent with the protection of human health and the environment whatever the place of disposal.

**United Nations Framework Convention on Climate Change, 1992:** recognizes that human activities have been substantially increasing the atmospheric concentrations of greenhouse gases, that these increases enhance the natural greenhouse effect, and that this will result on average in an additional warming of the Earth's surface and atmosphere and may adversely affect natural ecosystems and humankind. The convention seeks to protect the climate system for present and future generations.

**International Plant Protection Convention (2005)** helps countries to secure a common and effective action to prevent the spread and introduction of pests of plants and plant products, and to promote appropriate measures for their control, the contracting parties undertake to adopt the legislative, technical and administrative measures specified in this Convention and in supplementary agreements.



**Stockholm Convention On Persistent Organic Pollutants (2004)** recognizes that persistent organic pollutants possess toxic properties, resist degradation, accumulate and are transported, through air, water and migratory species, across international boundaries and deposited far from their place of release, where they accumulate in terrestrial and aquatic ecosystems and determines to protect human health and the environment from the harmful impacts of persistent organic pollutants.

**International Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matter, 1972** recognizes that the marine environment and the living organisms which it supports are of vital importance to humanity, and all people have an interest in assuring that it is so managed that its quality and resources are not impaired. The convention seeks to promote the effective control of all sources of pollution of the marine environment, encouraging states to take all practicable steps to prevent the pollution of the sea by the dumping of waste and other matter that is liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea.

**International Convention on Oil Pollution Preparedness, Response and Co-operation, 1990:** seeks to deal with the serious threats posed to the marine environment by oil pollution incidents involving ships, offshore units, sea ports and oil handling facilities.

**Convention on Fishing and Conservation of the Living Resources of the High Seas, 1958:** defines the roles of the State and its nationals in engaging in fishing on the high seas.

**Phyto-sanitary Convention for Africa (1967):** seeks to take all possible steps to prevent the introduction of diseases, insect pests, and other enemies of plants into any part of Africa.

**1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matter of 29 December 1972:** protects the marine environment and promotes the sustainable use and conservation of marine resources. It seeks international action to prevent, reduce and where practicable eliminate pollution of the sea caused by dumping and further seeks

to manage human activities in such a manner that the marine ecosystem will continue to sustain the legitimate uses of the sea and will continue to meet the needs of present and future generations. As early as 1962, a United Nations General Assembly Resolution (UNGA Resolution, 1962) encouraged governments to pay attention to natural resources management early into a phase of economic development. Later in 1973, the Fournex report of 1971 was on the same theme. In the Brundtland Report also called 'our common future' prepared by the World Commission on Environment and Development, the expression 'sustainable development' was formally introduced. It was defined as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs'. It essentially drew attention to two things: (a) the basic needs of the world's poor, and (b) the technological and social limitations on the ability of the environment to meet present and future needs. 'Needs' were given overriding priority<sup>70</sup>.

### **3.6 Conclusion**

To improve and safeguard a healthy and hospitable environment for all to enjoy, it is imperative to implement effectively the environmental regulations. The legal regime in Kenya for her environmental resources is adequate for effective conservation of the environment and enforcement of environmental rights. The international laws already adopted compliment them adequately. There remain shortcomings because the environmental degradation is continuing to increase. While majority of the shortcomings in the environmental conservation can be attributed to the failure to adequately implement exiting environmental laws, there has been progress made and loopholes that need to be filled. Some of the glaring loopholes include: weaknesses in institutional capacities mandated to enforce laws, lack of political will and inadequate funding of government institutions.

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<sup>70</sup> World Commission on Environment and Development, *Our Common Future*, (Oxford: Oxford University Press, 1987) 43.

**CHAPTER FOUR**  
**IMPACTS OF ENVIRONMENTAL RESOURCES AND THE POLICY**  
**RECOMMENDATIONS**

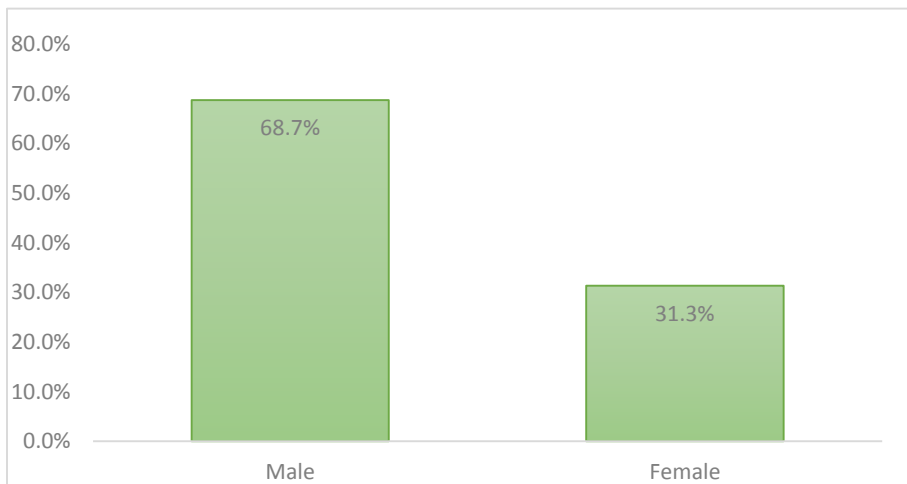
**4.1 Introduction**

This chapter discusses the impact of environmental resources and their economic bearing on Kenya and the policy options. The chapter starts by examining the demographic characteristics of the study.

**4.2 The study Demographic Characteristics**

According to Hauser and Duncan describe demography as the study of the size, territorial distribution, and composition of population, changes therein and the components of such changes<sup>71</sup>. The researcher needs this information as it is crucial in describing the composition of the targeted population in terms of gender, age and education level. This information is gathered so that one can assess environmental diplomacy in large participatory conferences: a review of Kenya’s environmental laws 1963 – 2018. Some of these conferences led to multilateral environmental agreements.

**Figure 4.1: Gender**

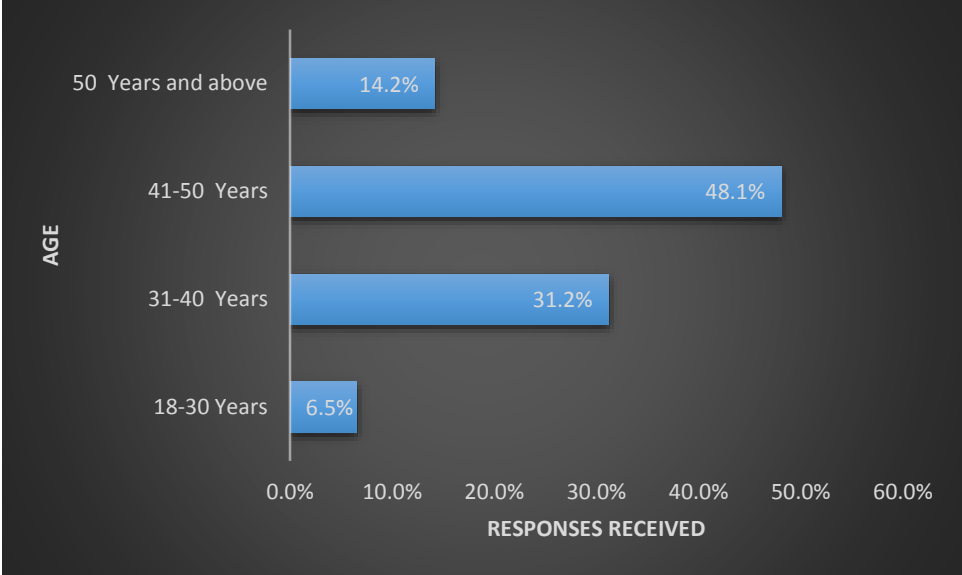


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<sup>71</sup> Hauser and Duncan (1959), *Journal of the American Statistical Association*, June 2000, pp. 670.

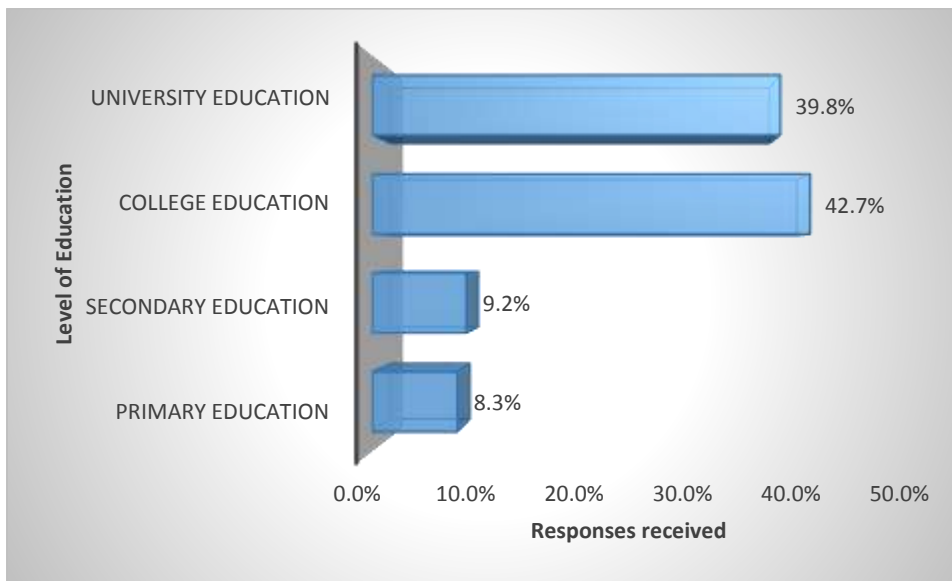
During the data collection process, both male and female participated in filling the questionnaire. The study revealed that majority of the respondents (68.7%) were males while 31.3% were female.

**Figure 4.2: Age Bracket**



After analysis of the data, the researcher was able to understand how different age brackets perceive environmental diplomacy in large participatory conferences. From this analysis it was observed that majority of the respondents were between ages 41 years to 50 years hence 48.1% of the respondents. 31.2% of the respondents were 31-40 years, 14.2% were aged above 50 years while 6.5% were aged between 18-30 years, as indicated on figure 4.2 above. This shows that the respondents' ages are diverse but most of them between the ages of 41 and 50.

**Figure 4. 3: Level of Education**



Respondents were asked to indicate their highest level of education. Based on the study findings majority of respondents (42.7%) had college education, 39.8% had university education, 9.2 % had secondary education while 8.3% had primary education. This is an indication that majority of the respondents were highly educated and thus higher chances of giving reliable information with regards to environmental diplomacy in large participatory conferences: a review of Kenya’s environmental laws 1963 – 2018.

### **4.3 Impacts of Environmental resources and their economic bearing on Kenya’s economy**

#### **4.3.1 Common Concerns of natural resources conservation**

The study sought to determine the Common Concerns of natural resources conservation. Respondents indicated that resources are important for the development of any country. For example, to generate energy, one need fossil fuels; and for industrial development, we require mineral resources. Natural resources are getting scarce with the increasing population, so it is essential to conserve them. Population pressure, deforestation, coastal modification, ongoing degradation of eco-systems as well as unsustainable use and poor governance of these resources threaten vulnerable habitats and biodiversity and, for a large proportion of Kenyans, livelihoods and long-term food security.

The environmental issues ranging from climate change, hazardous chemicals to biodiversity loss which are affecting almost every aspect of policy making in the world have made environmental diplomacy significant in the present day. Environmental protection and sustainability remain dominant due to the complexity and important reality of evolving environmental challenges that threaten human survival. Environmental diplomacy has two forms: first, proactive environmental diplomacy where two or more countries create a relationship and they exchange ideas on environmental protection, they also embrace culture and technology with the purpose of bettering the environment of one or all of the countries involved; on reactive environmental diplomacy the states involved conduct international relations to resolve a specific environmental issue.

Natural resources play a vital role to the sustenance and hence access or lack of the same cannot be taken for granted. Debate over the allocation of these resources and in particular with mounting scarcity and shortages in relation to over exploitation and subsequent depletion due to population growth and climate variations. Natural resources form an integral part of society worldwide due to their vital significance as foundations for communities' identity, economic standing and creation of wealth through industries and trade According to the United Nations study on internal conflicts worldwide, 40% are attributed to natural resources.<sup>72</sup>

Natural resource framework on management of renewable and non-renewable resources, is a crucial system or structure that assists to advert latent conflicts. These conflicts as defined as Resource – based conflicts as they manifest out of allocation disputes and grievances, misuse and mismanagement of the limited resources by those with authoritarian power over them which results into violence to extents of diminishing human welfare.<sup>73</sup>

As governments strive to maintain and control peace in their respective jurisdictions that is mainly brought about by insecurity, it's been acknowledged that conflicts of environmental nature are key

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<sup>72</sup> United States of Institute of Peace, (2014) 'Natural Resources, Conflict, and Conflict Resolution', A Study Guide Series on Peace and Conflict for Independent Learners and Classroom Instructors. Washington D.C. P. 6. Available at <http://www.usip.org/sites/default/files/file/08sg.pdf> [Accessed on 10/08/2014]

<sup>73</sup> Planas, Florent. "The Exploitation of Natural Resources". Un An Pour La Planete. Retrieved 22 March 2012.

in challenging security from local to international levels.<sup>74</sup> Unlike developed nations whose economies are more industrialized, developing economies tend to depend much more on their natural resources as primary sources of income and for the subsistence of their populations. In many societies, natural resources such as water, forests, land play a significant cultural and historical role in the identity of their people.

Like many other jurisdictions around the world, Kenya has not been an exception in experiencing conflicts over natural resources such as land, water, fisheries, forests, minerals and graze lands. Resource based conflicts are inimitable hence necessitate expeditious resolution since they involve livelihoods of people.<sup>75</sup> Kenyan societies which are part of the wider developing economies, depend heavily on natural resources for generation of income and sustenance of livelihoods. Resource based conflicts that have been experienced in the country and recently at the local levels with the devolution of the environmental matters, can partially be attributed to the wanting implementation of effective natural resource conflict management policies by County administrations. The National Environment Policy of 2013 by the Ministry of Environment, water and natural resources at the national level prescribes specific policies on natural resources and environmental conservation policies which are effective mechanism in addressing conflict that arise out of the allocation, utilization and management of natural resources within the country. The slow or lack thereof adoption and implementation thereof of these effective policies by County administrations, contributes to the escalation of conflicts that arise due to access of limited resources by growing population inhibiting these areas which destabilizes the communities' livelihoods and leads to environmental degradation<sup>76</sup>.

Grievances by communities due to historical injustices perpetrated on them for example on land allocation and colonial boundaries dividing ethnic tribes arguable act as catalyst to the fueling resentment and anarchy among communities that escalates mounting disputes into violent resource

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<sup>74</sup> Sumner, Brian Taylor (2015). "Territorial Disputes at the International Court of Justice". Duke Law Journal. Retrieved September 6, 2015.

<sup>75</sup> Tyler, S. (2016), Communities, Livelihoods, and Natural Resources: Action Research and Policy Change in Asia, (International Development Research Centre, 2016), available at <http://www.idrc.ca/EN/Resources/Publications/openebooks/230-9/index.html> [Accessed on 17/01/2016]

<sup>76</sup> Kaimba, G. K., Njehia, B. K., Guliye, A. Y. (2011). Effects of cattle rustling and household characteristics on migration decisions and herd size amongst pastoralists in Baringo District, Kenya.

based conflicts. In particular, varying norms, beliefs and societal interpretations concerning property rights amongst pastoralist societies have been associated to ensuing conflicts. Another school of thought asserts that public policy can at times contribute to conflicts over natural resources. A policy formulated by a government for example to relocate its citizens forcefully from land or forests over which it has control, may result in resistance hence violence as seen in the Mau Mau forest evictions in Narok.<sup>77</sup>

#### **4.3.2 Connection of environmental problems and the Survival of Humankind and Economic Development**

Respondents were asked to indicate how connection of environmental problems and the Survival of Humankind affects the Kenya's progress in economic development. Respondents indicated that environment is the foundation and support of human existence and survival and the guarantee of sustainable human development. The progress and socio-economic wellbeing of Kenyans is intertwined with the state of the environment. Majority depend directly or indirectly on environmental goods and services and the environmental resources contribute directly and indirectly to the national economy through revenue generation and wealth creation in such productive sectors as agriculture, livestock, fisheries, water, forestry, energy, trade, tourism and industry.

The political and socio-economic transformation since independence of Kenya has come hand in hand with high population growth, shrinking productive land and technological changes. These intertwined aspects provide the background against which to consider the changes that have occurred in the state of the country's environment. The main human activities contributing to environmental degradation are also the sources of livelihoods for the majority of population.

These activities also undermine the sink function of the environment which provides benefits that are not accounted for but are essential for supporting life such as natural purification and filtering of air and water, nutrient recycling and decomposition.

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<sup>77</sup> Boone, Catherine. "Land Conflict and Distributive Politics in Kenya." *African Studies Review* 55, no. 1 (2012): 75-103. <http://www.jstor.org/stable/41804129>.

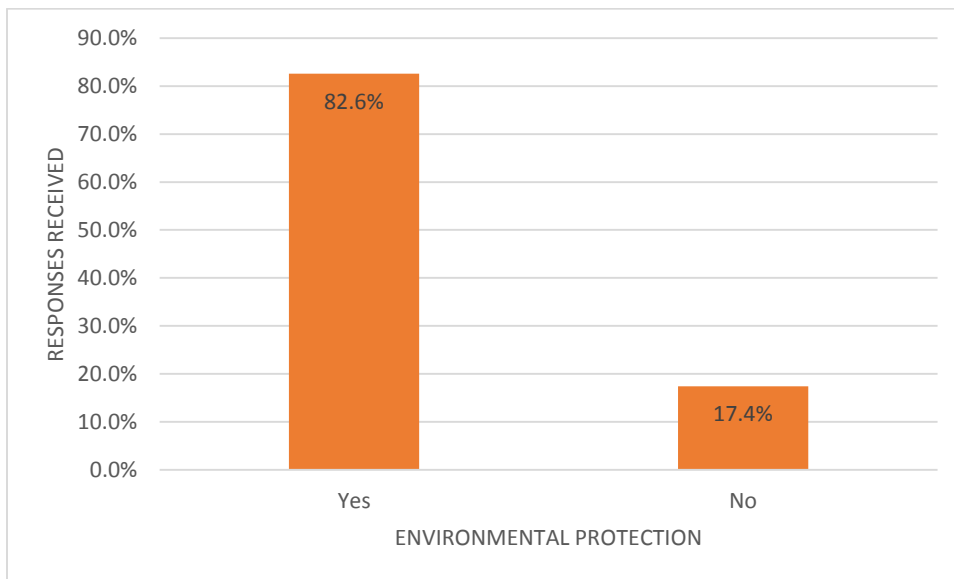


Impacts of climate change have double with increasing environmental degradation and led to the rising costs of water treatment, food imports and health services. These factors are a security threat, increasing human vulnerability and exhausting the country's economic resources. Matters are made worse, when communities move into marginal areas leading to further clearance of natural habitats such as forests and wetlands has been a major driving force behind land degradation throughout the country. The has led to loss of economic potential and options for commercial development and economic growth.

#### 4.3.3 Environmental Laws protection and conservation of the natural resources

Respondents were asked to indicate whether Environmental Laws have been able to protect and conserve the natural resources while providing for sustainable development in Kenya.

**Figure 4.4: Environmental Laws protection and conservation of the natural resources**



Based on the study findings, majority of the respondents as indicated by 82.6% agreed that environmental Laws have been able to protect and conserve the natural resources while providing for sustainable development in Kenya while 17.4% were on the contrary opinion. The respondents were on the opinion that Kenya is blessed with mega biodiversity and enjoys a unique tropical climate with varying weather patterns due to differing topographical dimensions. The biodiversity includes mountains, forests, arid and semi-arid areas (ASALs), freshwater,

wetlands, coastal and marine. The respondents cited conservation of Mau forest as a successful example where environmental laws have been able to protect and conserve the natural resources. Backing of environmental laws has also helped in increasing political will. The struggle over reforestation of the Mau forest is over the ownership and use of the resources and has been connected to various social, economic, and political forces. One of the most important success factors is to delineate political patronage from the process of Mau restoration of any other environmental resource restoration. It is also noted that for there to be sustainability in the process of re-afforestation there is need to involve all other stakeholders in safeguarding the forest resources. Reducing the negative publicity associated with the forest management practices and re-afforestation programs will encourage the need for the forests conservation, especially from the local communities.

According to Chebii<sup>78</sup> forest conservation sustainability can be achieved through effective Civic education by the relevant authorities and this is significant towards the sustainability of all the re-afforestation efforts and the conservation of the forest resources. The role of the county government and National government in enhancing forest sustainability cannot be overlooked. Conducting civic education that teaches communities about the benefits of forest and the consequences of its destruction. Other policies and regulations on land use, fuel use, and farming.

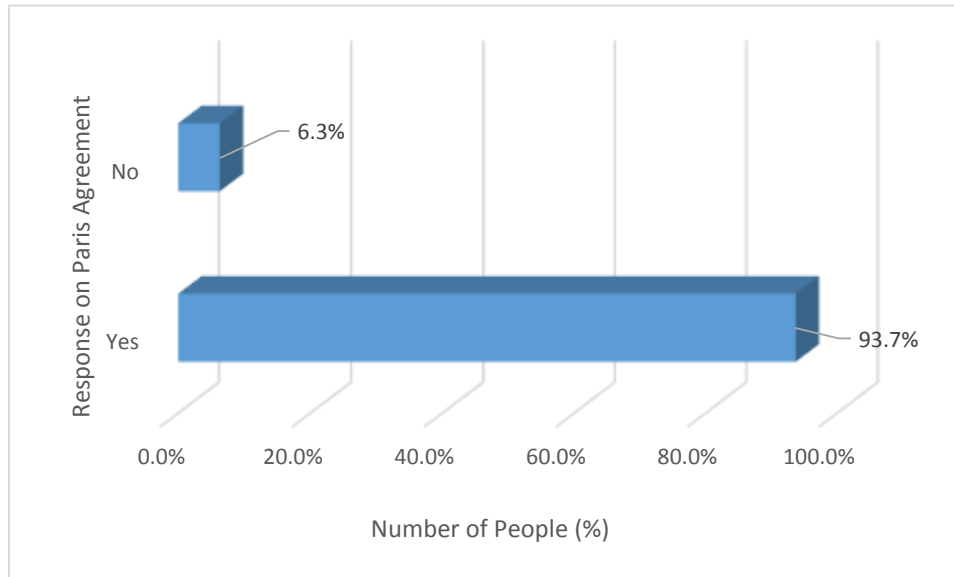
#### **4.3.4 Agreeing with support provided for developing countries in the Paris Agreement**

Respondents were asked to indicate whether they agree with support provided for developing countries in the Paris Agreement. Figure 4.4 presents the findings of the study.

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<sup>78</sup> Chebii, J. K. (2015). *Forest management and conservation in Kenya: A study of the role of law in the conservation of forest resources*. Doctoral Dissertation: University of South Africa.

**Figure 4.5: Agreeing with support provided for developing countries in the Paris Agreement**



As per the study findings, majority of the respondents (93.7%) indicated that they agree with support provided for developing countries in the Paris Agreement while 6.3% does not agree with Agreeing with support provided for developing countries in the Paris Agreement. This implies that Kenya agrees with support provided for developing countries in the Paris Agreement. The Paris Agreement picks up from the UNFCCC which recognized the importance of finances in climate change mitigation and adaptation. Indeed, one of its objectives is listed as “making finance flows consistent with a pathway towards low Greenhouse gases (GHGs) and climate-resilient development”.<sup>79</sup> To this end, it largely maintains the differentiation of parties that was characteristic of the UNFCCC and the Kyoto Protocol by placing the obligation of providing finance on developed states. Article 9.1 use the mandatory term, ‘shall’ in reference to the duty of developed states to assist developing ones. Developed states also bear the primary responsibility of mobilizing climate finance as reflected in Article 9.3 which provides that they should “continue to take the lead.” The decision that accompanied the Agreement stated that the goal of US\$100 billion per year that had been agreed in Cancun was to be reassessed before 2025.<sup>80</sup>

<sup>79</sup> Article 2.1.c

<sup>80</sup> Report of the Conference of the Parties on its Twenty-first Session, held in Paris from 30 November to 13 December 2015 (Decision 1/CP.21) available at <https://unfccc.int/resource/docs/2015/cop21/eng/10a01.pdf>

### 4.3.5 Effective ways to change human attitude to environmental problems

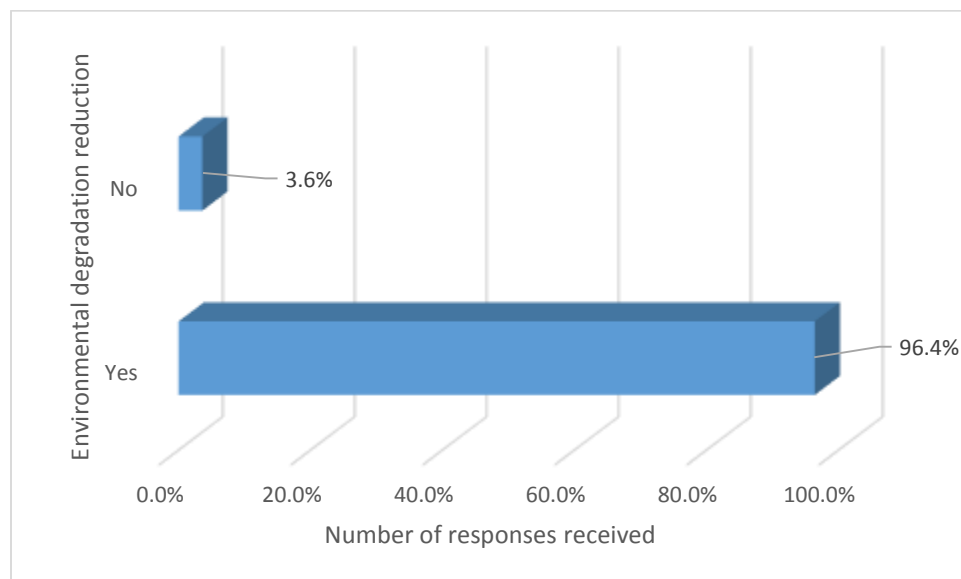
Respondents were asked to indicate two most effective ways to change human attitude to environmental problems.

### 4.4 Kenya signing into Environmental conventions and treaties; and the laws put in place governing its environmental resources.

The study sought to establish the Kenya signing into Environmental conventions and treaties; and the laws put in place governing its environmental resources.

#### 4.4.1 Laws to Reduce Environmental Degradation

Respondents were asked to indicate whether Kenya needs new laws to reduce environmental degradation such as pollution of rivers, lakes and Ocean. Figure 4.6 illustrates the findings of the study.



**Figure 4.6: Laws to Reduce Environmental Degradation**

Based on the study findings, majority of the respondents (96.4%) indicated that Kenya needs new laws to reduce environmental degradation such as pollution of rivers, lakes and Ocean while 3.6% were on the contrary opinion.

#### 4.4.2 Importance of the Awareness in Environmental Issues

The study sought to establish from the respondents the importance of the awareness in environmental issues and respect the environmental laws. The respondents indicated that the single most important thing that environmental awareness does, is to inform people of the dangers of continuing to consume as much as we currently do. This is because people need a good understanding of the threats to our earth, to fully realize the scale of harm. Consequently, awareness is all about topics like environmental health, sustainable development and global warming. Human activity especially economic activities are hugely responsible for damaging the environment, intentionally or unintentionally. For example, concentrations of greenhouse gases have increased by more than a third since the industrial revolution when there was most economic activities dependent on environmental resources highlights our impact. Therefore, it is our responsibility to improve our environmental awareness and change our behavior.<sup>81</sup>

The rise in greenhouse gas emissions causing global temperatures to rise affecting the composition of the air we breathe, the oceans and biodiversity on land. It has also led to increased rainfalls in wet areas and increased droughts in dry areas. This has a multiple effect leading to air, land and water pollution. Pollution causes the ingestion of toxic substances in animals and plants, and the food human beings eat. Poorer air quality also poses severe risks to human health as witnessed in China where they had to wear masks before 2020 to protect against harmful air. While forests provide us with raw materials such as food and medicine, deforestation is slowly eroding these diverse natural source. Trees are also an important 'carbon sink', as they help to balance out the concentrations of carbon dioxide in the atmosphere by absorbing it. With less trees, we are enhancing the greenhouse effect causes drastic climate changes such as hurricanes, droughts and floods.<sup>82</sup> At the same time, these changes in the atmosphere are supporting the growth of invasive and alien flora which does not provide food, or a source of income but harbors more pests and diseases for adjacent farms.

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<sup>81</sup> Schmidt, J. E. (2015). From intentions to actions: The role of environmental awareness on college students. *Journal of Undergraduate Research*, 10(10), 1-4.

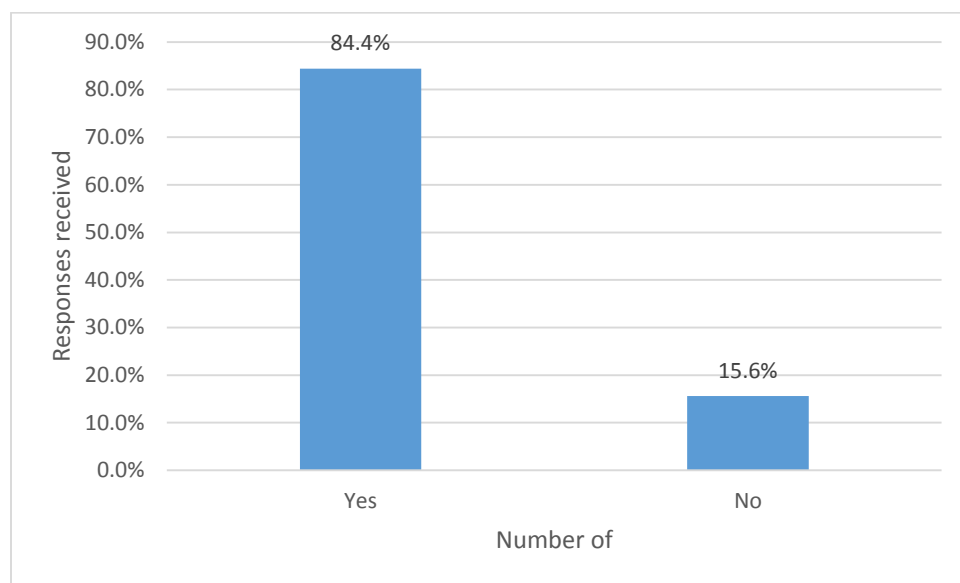
<sup>82</sup> Schmidt, J. E. (2015). From intentions to actions: The role of environmental awareness on college students. *Journal of Undergraduate Research*, 10(10), 1-4.

Many species are at risk of extinction because of climate change as they cannot adapt to the new weather conditions. All ecosystems are connected, so the extinction of a species that may seem inconsequential but has the substantial consequences for humanity. For example, many people aren't aware of the severe risks associated with the decline of honeybees which started in Europe because of a disease that would eliminate colonies of bees. Many people know bees for their reputation for nasty stings and attacking crowds, so some individuals may even feel excited by the prospect of bee extinction. However, their extinction will lead to flowers not being pollinated. They not only give us honey for food and medicine, but they are responsible for pollinating 35% of the 100 crop species responsible for most of our food and most of the vegetation. Therefore, the extinction of honeybees has a direct relationship with the sustainability of humanity's food supply and plants on earth. Even when the link between human economic activities and their impacts and the severe environmental issues isn't clear, it means that the impacts are felt far and wide and may last a long time before a solution can be found. This is why it's so important to take responsibility for protecting the environment wherever we can.

#### **4.4.3 Whether Constitution 2010 effectively captures how Kenya should go about environmental governance**

The study sought to establish whether Constitution 2010 effectively captures how Kenya should go about environmental governance and protecting its natural resources.

**Figure 4.7: Whether Constitution 2010 effectively captures how Kenya should go about environmental governance**



As per the study findings, majority of the respondents (84.4%) were on the opinion that Constitution 2010 effectively captures how Kenya should go about environmental governance and protecting its natural resources. The 2010 Constitution has significantly increased the class of persons that have lawful status to bring a case in court to impose environmental rights. Certainly, the Bill of Rights accords all persons the permission to have access to justice, including the substantial provision of legal status to all people. Whenever an appeal is filed by a person or a party in quest of execution of environmental rights, Article 70 gives the courts the authority to avert any act which damages the environment, or coerce somebody to take some action to better a previously degraded environment. Also Articles 162.2(b) and 165 brings to life a specialized court for land and environment. The role of the court is to listen to issues relating particularly to land and environmental privileges.

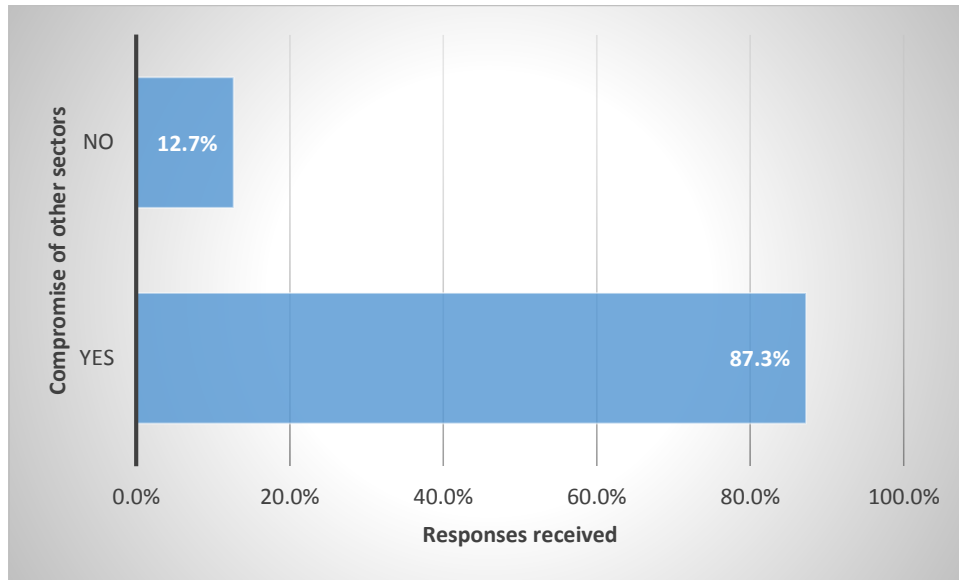
Kenya's 2010 constitution has specifications that try to steer the operations of numerous establishments in the state, even multinational corporations (MNCs). Article 10(1) of the constitution provides for nationwide beliefs and guidelines of governance that are binding to all State officials, state agencies, public representatives and the general public.

In Kenya sustainable development is very crucial. Connected to the principle of sustainable development are the standards of intergenerational equity and that of intra generational equity. The latter has been well-defined in Section 2 of Environmental Management Coordination Act (EMCA) to denote that all persons in the present-day generation hold the merit to gain evenly from environmental exploitation, and equaling to a healthy and unpolluted environment. While the principle of intergenerational equity, avers that every generations has the right to the natural environment just as with other persons, species, and with present-day, past and future generations Kenya's institutional and legal framework is quite sturdy and tackles most of the significant challenges facing environmental conservation in contemporary nations. The present legislation is pretty comprehensive, even though its shortcoming is that it lacks air quality guidelines. Regardless of this gap, the National Environmental Management Authority (NEMA), together with other lead organizations such as Kenya Parks Service, Kenya Wildlife Service, Water Regulation Management Authority, have the legal instruments they require to sufficiently protect and preserve the environment of Kenya, and ensure a healthy and uncontaminated environment for all inhabitants. Nonetheless, a healthy and unpolluted ecosystem has not been achieved yet. Lack of support amongst government ministries, and execution of the existing regulations is the impediments to achieving healthy environment.

#### **4.4.4 Compromising other areas such as urban planning, lifestyle**

The study sought to establish whether to solve environmental problems, we need to compromise other areas such as urban planning, lifestyle.





**Figure 4.8: Compromising other areas such as urban planning, lifestyle**

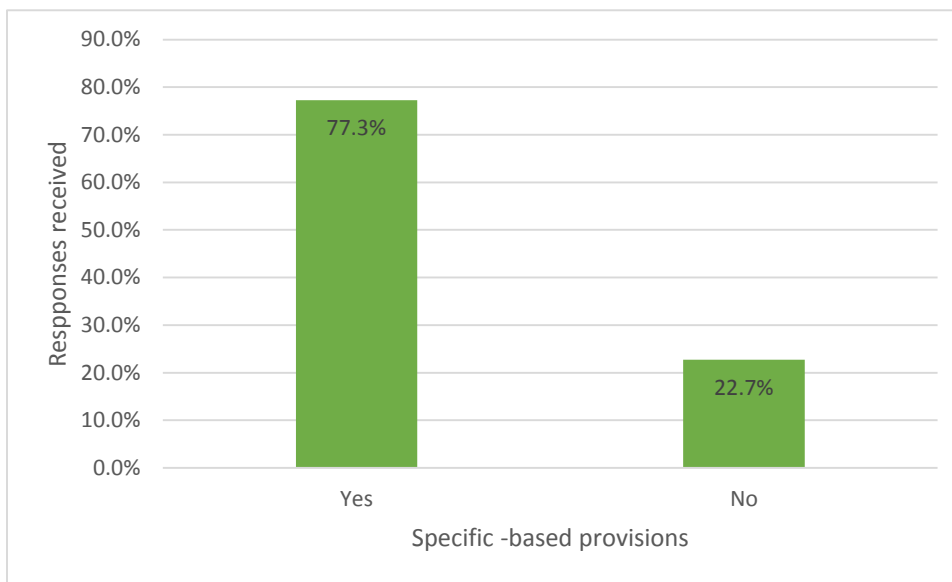
Based on the study findings, most of the respondents (87.3%) were of the opinion that to solve environmental problems, Kenya compromises on other areas such as urban planning, lifestyle. They indicated that many felt that conserving the environment takes away from other sectors that are a source of livelihoods to communities. For example, the Mau forest was a contentious issue because some communities viewed their evictions as ethnical targeting; it was a tall order to explain the importance of a protected forest to someone without land. The community living near government land often view it as uninhabited and a waste of resource. They are not able to link it to the environment around the. Unfortunately, the understanding of the interconnectivity comes after the loss of such a diverse biodiversity. The respondents quoted how after water shortages in the country were linked to Mau forest, it became a national discussion. By this time, many had moved into the forest and began agricultural activities in earnest and could not understand how their source of income was affecting water shortages in Kenya. Wildlife parks have often been targeted for developmental activities such as towns, settlements and agricultural activities. Some of the measures leaders can take to help to improve resource efficiency and reduce negative environmental impacts include: mainstreaming environmental priorities into city-level and local development plans, that work to merge urban economic growth with better resource efficiency.

At the same time, some developmental projects which are necessary destroy the adjacent environmental resources and these can be solved by integrating pollution reduction strategies in urban planning and management; creating “green jobs” and supporting social entrepreneurs which seeks to sustainably develop the environment. Having a strong political support and commitment for each of the strategies can generate environmental and social opportunities.

#### 4.4.5 Specific figure-based provisions

The study sought to establish whether Specific figure-based provisions are more useful than laws and regulations that are stipulated in general terms.

**Figure 4.9: Specific figure-based provisions**



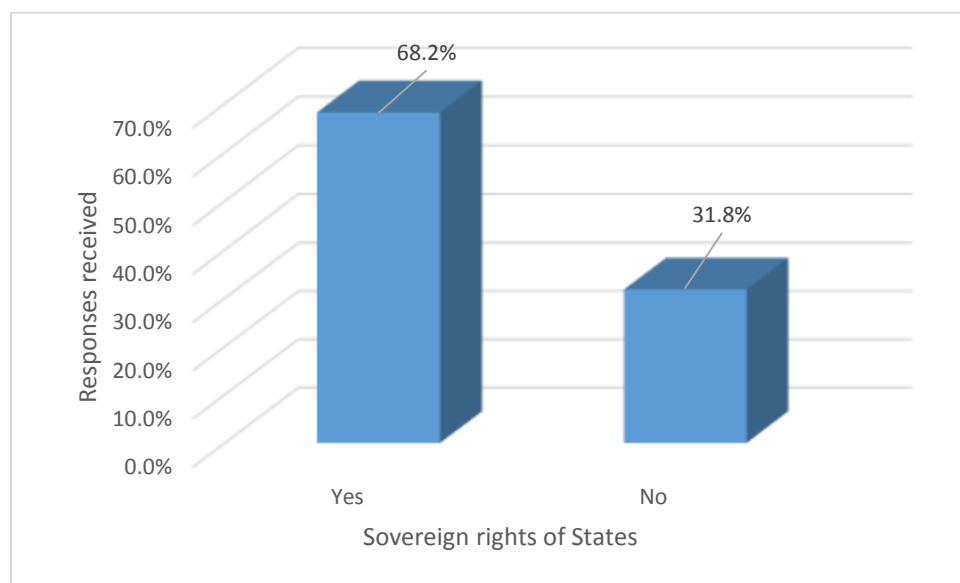
The study findings revealed that specific figure-based provisions are more useful than laws and regulations that are stipulated in general terms as indicated by 77.3% who are the majority.

### 4.5 Benefits for the Kenya’s national interests and the costs of these Strategies on Environmental Resources in terms of implementation.

#### 4.5.1 Relationship between the sovereign right of states to exploit their own natural resources

The study was interested in establishing whether there is a relationship between the sovereign right of states to exploit their own natural resources.

**Figure 4.10: Relationship between the sovereign rights of states to exploit their own natural resources**



According to the study findings, majority of the respondents (68.2%) were on the opinion that there is a relationship between the sovereign right of states to exploit their own natural resources.

#### **4.5.2 Environmental issues, education and economic growth.**

Then study sought to establish how environmental issues can be tied to education and economic growth. The study revealed that environmental education, both formal and informal, is vital to changing people's attitude to appreciate environmental concerns. Formal education at all levels is important and empowers people by increasing awareness, improving extension services, sensitizing people on environmental issues and building the effective institutional capacities. Non-formal environmental education benefits people outside the formal education system and helps in informing the communities who are users of an environmental resource, its connectivity to their livelihoods. However, communication of environmental information to all stakeholders remains a challenge and more efforts should be done. This is because public awareness empowers the communities develop a strong sense of responsibility and ownership on environmental issues. Along the coastal region, the communities living near the mangrove forests are now the main campaigners for environmental conservation while some years back, they were logging them daily for sale of timber in the local markets. The transformation has been done after thorough public education and the community participated in

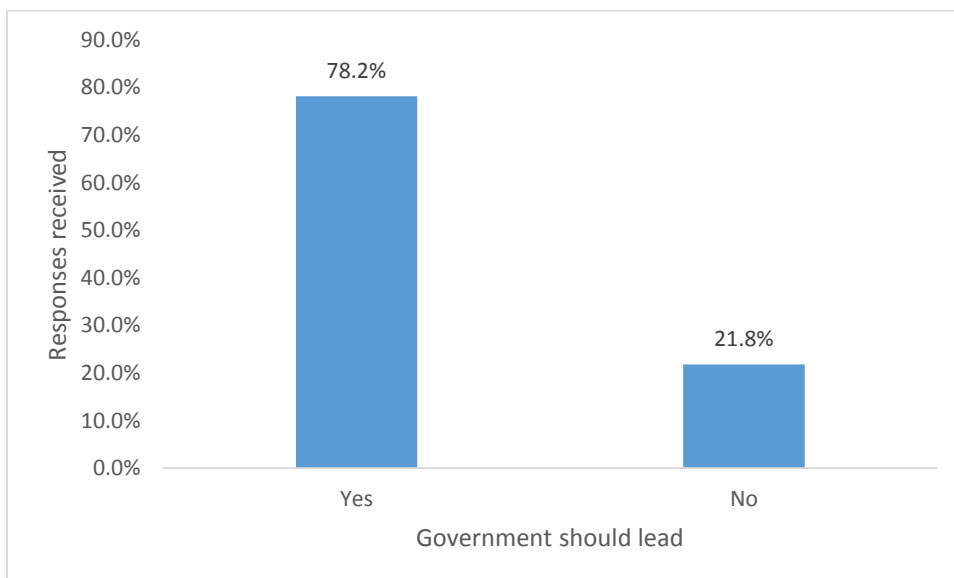
the clean house mechanism project provided by the international environmental agreements in Kenya which provided income for every acre of tree conserved. Later, the community was able to come up with innovative business ideas in the mangrove forests such as broad walks, bee keeping, bird watching while conserving the integrity of the newly planted forests.

The respondents indicated that information is the foundation of sustainable development and is fundamental to successful planning and decision making. There is need for enhanced environmental research, training and dissemination of environmental management tools in Kenya.

#### **4.5.3 Environmental protection should be led by the Government and implemented by enterprises**

The study sought to determine whether environmental protection should be led by the Government and implemented by enterprises through strict relevant standards, clear penalties, timely news and media supervision.

**Figure 4.11: Environmental protection should be led by the Government and implemented by enterprises**

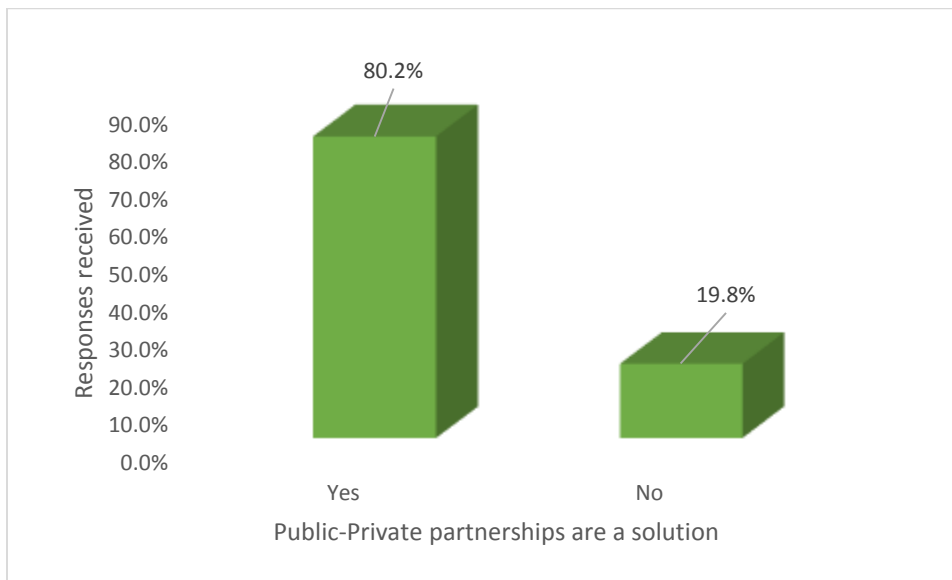


Based on the study findings majority of the respondents (78.2%) agreed that Environmental protection should be led by the Government and implemented by enterprises through strict relevant standards, clear penalties, timely news and media supervision

#### 4.5.4 Public-Private Partnership in Solving Environmental Problems

The study sought to determine whether to solve environmental problems, the public-private partnership is important.

**Figure 4.12: Public-Private Partnership in Solving Environmental Problems**



Based on the study findings majority of the respondents (80.2%) agreed that to solve environmental problems, the public-private partnership is important.

## **CHAPTER FIVE**

### **RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter discusses the recommendations observed from the research study in line with impact of environmental resources and their economic bearing on Kenya and the policy options. This chapter, therefore, presents the summary of the entire research study findings, conclusion and lastly policy recommendations suitable to the subject under investigation.

#### **5.2 Recommendations**

The study revealed that the environmental resources benefits are valued as raw materials for industrial processes; some are valued as food and cash crops and others such as regulation of climate, prevention of soil erosion among others, give benefits in a secondary way and may not be assigned an economic value; some have benefits that are noticed when they are absent such as forests, wildlife and fisheries. The tremendous gains obtained from relying on the environmental resources, are degraded by the activities associated with using them. There have been efforts by policy makers and scientists to deliberate on assigning a value that would help in protecting these resources. However, the degradation has continued. The negative impacts have caused poverty, ill health in some case fatalities. Furthermore, the impacts of activities within one border are now felt across boundaries, e.g. air and water pollution causing this to be a regional and global concern, no longer confined to societies living close to that environmental resources. As the degradation of environmental resources phenomenon continues, it has raised the question on what environmental laws a country is putting in place. This study recommends that the government should develop and implement a national assessment programme to monitor the state of the environment. Industries or sectors may be designed to minimise environmental harm but unless an authority is there to monitor emissions, standards might slip. At the moment, even the reports on such slips are not shared outside that particular sector and may not contribute to a national scope. An overarching assessment across all sectors will help indicate what is missing, what has been done and what would work where.

The study also revealed that effective implementation of environmental regulations is essential to improving and safeguarding a healthy and hospitable environment for all to enjoy. Kenya may not need new laws because her environmental legal regime is adequate for effective conservation of the environment and enforcement of environmental rights. The shortcomings in the environmental conservation can be attributed to the failure to adequately implement existing environmental laws. This failure can be attributed to several factors: weaknesses in institutional capacities of the governmental institutions mandated to enforce laws, lack of political will and inadequate funding of government institutions. The study recommends that Kenya should use the linkages in domestic and international laws to tackle the challenges of climate change in the short and long terms, and emphasis should be on synchronizing the implementation processes so as to take advantage of the resources often provided in the international agreements. Shortcomings in technology can be filled by the provision of technology transfer in several international agreements.

Sound environmental protection and management require sustainable financing mechanism. The study confirms that government's budget remains as the single largest source of funding for protection and conservation of the environment and natural resources. However, the current allocation to environment and natural resources is inadequate and this has been for a long while. As such, there is an urgent need to complement government funding by harnessing additional funding from multilateral funding mechanisms, development partners, private sector and civil society organizations. The study recommends that the government should provide adequate resources for environmental protection and management through annual budgetary allocation. In addition, the government should promote participation of individuals, public and private partnership through fiscal incentives and voluntary agreements pegged on environmental performance indicators.

The study affirmed that activities related to economic activities such as construction and urbanization compromises on gains made in environmental conservation and this continues to pose a problem in achieving sustainable development. As recent as 2020, Kenya has welcomed the

coming into force of the Paris Agreement that will provide the much-needed impetus to address climate change for a safer future. This is expected to increase the resilience and enhance adaptive capacities to the impacts of climate change by implementing the Kenya's national adaptation plan which contains sector strategic adaptation actions for each planning sectors taking into account that all sectors are vulnerable to climate change. The study recommends that the implementation activities should be synchronized across all including planning and building, construction and mining, housing and urbanization, agriculture and agroforestry. Sectoral thinking and implementation hinders from achieving sustainable use of the environment resources. Traditionally, two sectors have been seen as competing against each other, e.g. shipping and marine parks seem conflicting yet depend on the same benefits provided by the ocean. The study recommends that sector specific laws should be streamlined with the Constitution. Approaches such as combined collaborative strategies and joined-up goals should take precedence so that the priorities of both sectors can be considered. This will mean more communication and knowledge exchange between policy makers, scientists and the communities.

The results of the study indicate that there is a missing aspect of public education and awareness. The tragedy of commons would be prevented when the public is aware of the benefits they cumulatively gain from protecting the integrity of the environmental and using it sustainably. Thus, the study recommends developing a National Strategy on Environmental Education and Public Awareness. This should go hand in hand with the National Environmental Education Curriculum. In addition, the government should document, disseminate and encourage the use of indigenous knowledge in environmental protection and conservation.

The study indicated that environment should be led by the government because it contributes the highest amount of budget. This study recommends strong actions to strengthen the public private partnerships particularly modern business models in the green and blue economies. These social entrepreneurs are entering the development space with initiatives that contribute to environment conservation and economic growth at the same time such as, projects bringing solar power to villages in remote areas help development and address environmental issues.



Further, the study indicated that the significance of environmental diplomacy is becoming more elaborate by the day since environmental issues ranging from climate change, hazardous chemicals to biodiversity loss are affecting almost every aspect of policy making in the world. Environmental protection and sustainability remain paramount due to the complex and highly important reality of current environmental challenges that threaten human survival. One of the core campaign tenets for the UN Security Council non-permanent seat, Kenya committed to progress climate security in Africa. Climate change continues to be threat to global security, having given rise to trigger tension between neighboring countries sharing a transboundary environmental resource. International conflicts over control of a transboundary resources have led to wars, especially when diplomatic resolution fails, and all eyes remain on Kenya as she takes on this precarious role. The study recommends that Kenya puts her efforts in shaping of common approaches on how to protect the natural capital endowment from internal and external forces, stem the environmental losses and enhance the sustainable productivity of the natural capital that will guide the implementation of environmental laws in the continent and formulate any other laws that might be developed in the future.

## **5.2 Conclusion**

Kenya has faced countless challenges with the implementation processes of environmental rights since independence. For instance, not until a decade ago, Kenya never had any policy specially created to tackle infringements of environmental rights. Complainants alternatively had to apply the law of contract and tort to rectify environmental violations. Environmental issues were mainly private law matters and were of no interest to the key sections of public law. Even worse, Kenya's environmental policy regime was categorized by the presence of a collection of sectoral laws that dealt with specific matters linked to environmental preservation, development and safety. However, after the August 2010 promulgation of a new Constitution and as far as the execution of environmental rights is concerned there has been a fundamental change. The Constitution of Kenya (2010) has the capacity to create progress, and has given environment an important standing in its structure.

There is a co-relation between the drivers of environmental, socio-economic and political change and the development of the environmental laws of Africa. Now there is a growing recognition that nature serves as the foundation for development over the long term because the environmental resources support our food production, clean our water, regulate our climate, and safeguard the Earth's biodiversity. The continent is advancing its socio-economy growth in tandem with the sustainable management of the environment including and improvement of environmental laws at continental, regional, national and local levels. Thus making, environmental conservation and protection as urgent as economic growth in Africa. This means Africa requires to harness all the resources available and have a leadership in the global fora that will navigate the ever increasing challenges brought on by degradation of transboundary resources. The attention that environmental concerns have elicited have legitimized Africa's engagement in the international agenda. The win of Kenya to the UN Security council is described as "a demonstration of the country's growing profile and influence in the community of nations as a steadfast and dependable development partner." This comes at an important time when Africa is implement the landmark African Continental Free Trade Area (AfCFTA) agreement. Trade in Africa is entirely based on environmental resources. Henceforth the implementation of the AfCFTA will influence and play a role in implementing domestic and international environmental laws. Thus, at the international agenda, successful implementation of domestic environmental laws in Kenya will influence how she steers Africa at the UNSC and in achieving the ACFTA, which must move the continental economy from protectionism to facilitating sustainable development.

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## APPENDIX

### Appendix 1: Research Questionnaire

Dear Respondent,

I kindly request you to provide information for our research study titled; “*Environmental Diplomacy in Large Participatory Conferences: A Review of Kenya’s Environmental Laws 1963 – 2018.*” The study firstly chronicles how Kenya protects, develops and manages these resources through domestic laws as well as adopting regional and global conventions and treaties. It then proceeds to interrogate how these environmental laws and conventions have benefited Kenya’s national interests - through attracting economic resources, building capacity in people and institutions, forestalling domestic opposition, enhancing economic sustainability, and improving her global reputation. The last part of the study identifies the gaps in terms of implementation deficits, unintended (and adverse) impacts in other policy sectors, and in the context of the role of Kenya in international relations in the international system.

You have been identified purposively to provide critical information to make this study a success. Your cooperation is highly appreciated.

Thank you.

**PART 1: Bio Data.**

*Please tick where applicable.*

- i. Sex: Male  Female
- ii. Age: 18-30  31-40  41-50  50 and above
- iii. Highest level of formal education attained:  
None at all ; Primary education ; Secondary education ;  
College education ; University education .

**PART 2: Please TICK (✓) or type in ink where APPROPRIATE**

**SECTION A: Impacts of Environmental resources and their economic bearing on Kenya's economy**

1. Why do you think the conservation of natural resources such a common concern?

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

2. There is a connection of environmental problems and the Survival of Humankind. How do you think this has affected Kenya's progress in economic development?

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

The objective of Environmental Laws is to protect and conserve the natural resources while providing for sustainable development. Have these laws achieved their objective?

If yes, please provide a successful example

.....  
.....

If no, please explain?

.....

.....  
There is support provided for developing countries in the Paris Agreement, do you agree with that  
it? If not, what do you think the support should be?

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

What do you think are the two most effective ways to change human attitude to environmental  
problems?

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

**SECTION B: Kenya signing into Environmental conventions and treaties; and the laws put  
in place governing its environmental resources.**

1. Do you think Kenya needs new laws to reduce environmental degradation such as pollution of  
rivers, lakes and Ocean?

*Yes* [    ]                      *No* [    ]

Please explain the reason for your answer

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

2. What is the importance of the awareness in environmental issues and respect the environmental  
laws?

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



Do you think our Constitution 2010 effectively captures how Kenya should go about environmental governance and protecting its natural resources?

*Yes [ ]                      No [ ]*

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

To solve environmental problems, we need to compromise other areas such as urban planning, lifestyle.     *Yes [ ]                      No [ ]*

Please provide an explanation for your answer.

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

Specific figure-based provisions are more useful than laws and regulations that are stipulated in general terms. *Yes [ ]                      No [ ]*

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

Reinforcement of International Environmental Institutions such as UNEP should be located in countries in Africa where these environmental challenges are most?

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

How can we change to mitigate and control crisis development resulting from environmental degradation?

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

**SECTION C: Benefits for the Kenya’s national interests and the costs of these Strategies on Environmental Resources in terms of implementation.**

Is there a relationship between the sovereign right of states to exploit their own natural resources?

*Yes [ ] No [ ]*

Is there a responsibility of States to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states or of areas beyond the limits of national jurisdiction.

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

Environmental issues can’t be considered in a vacuum, but must be tied to education and economic growth. How is this possible?

.....  
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Environmental protection should be led by the Government and implemented by enterprises through strict relevant standards, clear penalties, timely news and media supervision.

*Yes [ ] No [ ]*

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To solve environmental problems, the public-private partnership is important

*Yes [ ] No [ ]*

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END.