TOWARDS FINDING DIPLOMATIC SOLUTIONS TO

1

DEFORESTATION IN KENYA: THE CASE OF MAU FOREST, 1963 -2011 //

BY NAME: CAROLINE OGINDA

A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD DEGREE OF MASTERS OF ARTS IN DIPLOMACY TO THE INSTITUTE OF DIPLOMACY AND INTERNATIONAL STUDIES, UNIVERSITY OF NAIROBI.



OCTOBER 2012

BJ 360822 Afr. JX 964 .045 C.2

Declaration

This Research project is my own original work and has not been presented for the award of degree in any other University

Caroline M. Oginda

20^{1 tl} NOVEMBER 2012

Date

This Research project has been submitted for examination with my approval as University supervisor.

Dr. Ibrahim Farah

Date

Dedication

I dedicate this work to my family who tirelessly inculcated the value of education to me.

To dad, very early in my life, you incalculated the notion of always devising methods to face up to all situations on my own. Your words still echo in my ears, 'if you were alone, what would you have done?'', this has been a very critical skill throughout my life.

To mum, I present this work in appreciation to your early childhood to date guidance and inspiration to acquire education to the level I wished. You outstandingly guided and inspired me against all tides of life. It has always been a challenge to me more importantly because of the vision you always cuddled for your children's education.

Acknowledgement

I take this opportunity to acknowledge with great humility those who provided support for the completion of the research project. I acknowledge and thank my supervisor Dr. Ibrahim Farah for his benevolence and intellectual guidance throughout the project duration.

I salute other lecturers and my colleagues at IDIS their characters combine patience, perseverance and humor in a very meditative nature, making it a great joy to work with them.

I express gratitude to the respondents for their assistance in giving me feedback on questions I kept asking from time to time. My unreserved gratitude goes to my parents, sisters, brother and friends for their unwavering support in my two year Masters Programme that have seen me come this far.

Name <u>Caroline M. Oginda</u> Date <u>21st Norumber 2012</u>

Table of contents

| Declaration | ii |
|------------------------|------|
| Dedication | |
| Acknowledgements | iv |
| Abstract | viii |
| List of Abbreviations. | ix |

CHAPTER ONE: INTRODUCTION TO THE STUDY

| Introduction | 1 |
|-----------------------------------|----|
| Background | 3 |
| Statement of the research problem | 6 |
| Objectives of the study | 8 |
| Literature review | 8 |
| Justification of the study | 19 |
| Hypotheses | 20 |
| Conceptual framework | 21 |
| Research methodology | |
| Chapter outline | 25 |

CHAPTER TWO: TOWARDS FINDING DIPLOMATIC SOLUTIONS TO DEFORESTATION: AN OVERVIEW

| Introduction | |
|----------------------------------|----|
| The Concept of Deforestation | 27 |
| Deforestation in the 1960 – 1980 | 29 |
| Deforestation in 1990 – 2011 | |

| Deforestation and its manifestations in Kenya | 34 |
|---|----|
| Deforestation and Emerging Issues | 36 |
| Conclusion | 43 |

CHAPTER THREE: TOWARDS FINDING DIPLOMATIC SOLUTIONS TO DEFORESTATION IN KENYA: THE MAU FOREST, 1963-2011

| Introduction44 |
|--|
| Background 44 |
| Deforestation Threats |
| Forest and Biodiversity Loss |
| Population Growth |
| Land degradation48 |
| Soil erosion |
| Water Scarcity |
| Loss of wetlands |
| Forest Institutions and legal framework after 199953 |
| Forest Act No. 7 of 2005 and Deforestation |
| Background of Diplomacy and Mau Forest57 |
| Unofficial Diplomacy in deforestation issues |
| Conclusion |

CHAPTER FOUR: TOWARDS FINDING DIPLOMATIC SOLUTIONS TO DEFORESTATION IN KENYA; THE MAU FOREST: CRITICAL ANALYSIS

| Introduction | |
|----------------------------------|----|
| Emerging Issues | |
| The role of unofficial diplomacy | |
| Monitoring state commitments | |
| Other issues | 79 |
| (a)Forest security | |
| (b)Population growth. | |
| (c)Land degradation | |
| Conclusion | |
| CHAPTER FIVE: CONCLUSION | |

| Summary | |
|-----------------|--|
| Key findings | |
| Recommendations | |
| BIBLIOGRAPHY. | |

ABSTRACT

This study proposes diplomatic solutions to deforestation in Kenya, Mau forest. It analyses the study under three themes namely; diplomatic solutions, deforestation, and deforestation in Mau forest. The study used primary and secondary sources of information to collect data. Primary data was pursued under two categories; unpublished primary data and published primary data. Particular NGO's and government organizations were identified, these organizations and individuals are involved in Mau issues, and information from them was used to develop literature review and also chapters three and four. Unpublished primary documents were sourced from these identified organizations. Apart from NGO's and government organizations, information was also sought from UNEP and the Interim Coordinating Secretariat, office of the Prime Minister on conservation of Mau Forest in Kenya, this was useful in understanding the actors in the Mau forest issues. This study used a conceptual framework which involved the approach of the topic through a casual construct or causes of deforestation line of inquiry that qualitatively or quantitatively connects the status with forest resource conflict. This was important since it recognizes the fact that in the conduct of diplomacy, states are not solitary actors, but are substituted by other non-state actors. From the research study, it emerged that diplomacy enhance co-operation of relations among non-state actors in Mau forest, although they don't substitute the role of states, they are useful because of their skills, technical knowledge and ability to lobby. It also emerged from the study that proper compensation and settlement of the evictees has not been secured. There are numerous threats to deforestation of the Mau forest, like population growth, land degradation, soil erosion, loss of wetlands, food insecurity and water scarcity. The main reason why state has failed to curb Mau forest loss is because, they pursue policies as solitary actors yet the Mau resources is a trans-boundary issue. It also emerged that internal conflicts within the Mau forest settlers and the state deter non state actors from pursuing its conservation and management of the forest.

LIST OF ABBREVIATIONS

| AU | • | African Union |
|--------|---|--|
| CIDA | - | Canadian International Development Agency |
| COHRE | - | Centre on Housing Rights and Eviction |
| COMESA | - | Common Market for Eastern and Southern Africa |
| СОР | - | Conference of the Parties |
| CPF | - | Carbon Partnership Facility |
| DRC | - | Democratic Republic of the Congo |
| ЕКС | - | Environment Kuznets Curve |
| EU | - | European Union |
| FAO | - | Food Agricultural Organization |
| FCPF | - | Forest Carbon Partnership Facility |
| GEF | - | Green Environment Facility |
| GHG | - | Greenhouse Gas |
| ICRAF | - | International Centre for Research in Agro forestry |
| IPCC | - | Intergovernmental Panel on Climate Change |
| ISS | - | Institute for Security Studies |
| IUCN | - | International Union for Conservation of Nature |
| KANU | - | Kenya African National Union |
| LTPR | - | Land Tenure and Property Rights |
| MDGs | - | Millennium Development Goals |
| MTF | - | Mau Task Force |
| NEMA | - | National Environment Management Authority |
| NGO | - | Non Governmental Organizations |
| OLS | 2 | Ordinary Least Square |

| REDD >> | | Reducing Emissions from Deforestation and Forest Degradation |
|---------|--|--|
|---------|--|--|

- SBSTA Subsidiary Body for Scientific and Technical Advice
- UN United Nations
- UNDP United Nations Development Programme
- UNEP United Nations Environmental Programme
- UNFCCC United Nations Framework Convention on Climate Change
- USAID United States Agency for International Development
- WB World Bank

CHAPTER ONE

INTRODUCTION TO THE STUDY

Introduction

Deforestation refers to the removal of forest or stand of trees where the land is thereafter converted to a non-forest use. Examples of such activity include conversion of forest land to farms, grazing fields, construction and urban use. According to UNEP, deforestation is the loss of primary forests and this could be through subsistence farming, government backing to conversion of land to other uses as well as poverty and inequitable land distribution.

Deforestation is already affecting the natural and managed systems- forests, wetlands, corals, agriculture, fisheries that societies depend on to provide food, fuel and fiber and for many other services. Deforestation depresses agricultural yields in many regions making it harder to meet the world's food needs. This comes at a time when the world is facing intensified competition for land, water, biodiversity and other natural resources. There has been a decline in production since the 1960s, countries for example Kenya will have to reverse that trend if it has to meet its food needs in the face of climate change arising from deforestation since a decline in forest cover means less or lack of rainfall that is necessary for agriculture. Ecosystems are being disrupted on a large scale; coral reefs are being lost to bleaching,¹ pollution and destructive farming.

¹The World Bank, *Environment Strategy Paper : Making Sustainable Commitments* (Revised Draft), (Washington D.C:2001c)

A worldwide bleaching event in 1998 associated with El Nino, harmed 16 percent of the world's vegetation cover, with possibly half damaged irreversibly. Another 32 percent are thought to be threatened over the next 30 years, and 11 percent have already been lost.² According to Kenya According to the Atlas of Our Changing Environment and UNEP, In 1980s, Kenya's forest cover was 10 percent now it is about 1 %.³ Forest loss, for instance, results largely from conversion to agriculture by small, medium and large farmers, though logging often plays a crucial catalytic role in providing access and financing for conversion. Until recently, impoverished shifting cultivators were thought to cause much tropical deforestation. Tropical deforestation can exacerbate the poverty of communities dependent on the forest for their livelihood. While some people gain from ecosystem damage, others suffer, both locally and globally.

Some of the local damages affects lives and livelihoods directly and immediately; Rundown of renewable stocks of fish, timber or wildlife; Decreased flood buffering and nutrient filtering due to the loss of wetlands; Increased flooding and sedimentation; Loss of water yield from cloud forests; Degraded drinking water quality and Health and other impacts of air pollution from forest and land fires, this damages are large. ⁴ Feedback between vegetation loss and reduced rainfall could result in faster desertification which in turn will result in major health and food insecurity.

² The World Bank, Implementation Completion Report No. 22390-TUN: North West Mountainous Areas Development Project. (Washington D.C Processed; 2001d)

³ UNEP, Kenya Launches Multimillion Dollar Appeal to Restore vital Mau Forest, September, 2009

⁴ P. J. Honculada, Shrimp Farming in the Asia-Pacific: Environmental and Trade Issues and Regional Co-operation; Nautilus Institute Workshop on Trade and Environment in Asia-Pacific: Prospects for Regional Co-operation, September 23-5, Berkeley, Calif: 1994

Background

Environmental problems began to emerge as a social and political issue in the late 1960s as the impact of industrialization began to be felt around the globe. In many parts of the world, the quality of life has deteriorated because of global environmental degradation and resource scarcity.⁵ About one half of the forests that covered the Earth are gone. Each year, another 16 million hectares disappear. ⁶The World Resources Institute estimates that only about 22% of the world's (old growth) original forest cover remains "intact" - most of this is in three large areas: the Canadian and Alaskan boreal forest, the boreal forest of Russia, and the tropical forest of the northwestern Amazon Basin and the Guyana Shield (Guyana, Suriname, Venezuela, and Columbia. Seven countries (Russia, Brazil, Canada, the United States, China, Indonesia, and the Democratic Republic of Congo (formerly Zaire) account for more than 60% of the total.

For millennia, humankind has influenced the forests, although much of the impact has been relatively minor. Today, the impact is enormous. Deforestation is expanding and accelerating into the remaining areas of undisturbed forest, and the quality of the remaining forests is declining.

⁵ Intergovernmental Panel on Climate Change (IPCC), "Climate Change 2001: Impacts, Adaptation, and Vulnerability (Summary for Policy Makers)^{**} and "Climate Change

^b World Resource Institute, *People and Ecosystems*, (Publications, 1998-1999)

Today we examine Kenya's patterns in deforestation, assess the human and ecological costs of forest loss, and discuss some of the steps that can help to rectify this alarming situation. It is impossible to overstate the importance of humankind's clearing of the forests. The transformation of forested lands by human actions represents one of the great forces in global environmental change and one of the great drivers of biodiversity loss. The impact of people has been and continues to be profound. Forests are cleared, degraded and fragmented by timber harvest, conversion to agriculture, road-building, human-caused fire, and in myriad other ways.

The effort to use and subdue the forest has been a constant theme in the transformation of the earth, in many societies, in many lands, and at most times. Just think, originally, almost half of the Kenya's land was covered with forests including Mau forest and Karura forest to name just a few, and much of the rest of the country were forested. The forests have been mostly removed for fuel, building materials and to clear land for farming. The clearing of the forests has been one of the most historic and prodigious feats of humanity. Deforestation has important implications for life on this planet; the loss of tree cover over extensive areas of the humid tropics is a global phenomenon with important implications for the health and prosperity of forest ecosystems, as well as the local people and economies that depend on their resources.

Furthermore the Economic Survey indicates that, the forests plantations stockings decreased by 6.1 percent from 114.0 thousand hectares in 2008 to 107.0 thousand

4

hectares in 2009.⁷ The decline was mainly attributed to high planting failures and fire damages totaling to 8.7 hectares in 2009 compared to 1.0 thousand hectares in 2008. The area planted declined from 5.7 thousand hectares in 2008 to 3.5 thousands hectares in 2009. It's against this notion that Kenya recognized the vital role of afforestation in its development endeavor, this is evidenced by intensified efforts by government through Kenya Forest Service in rehabilitation and conservation of natural forest. Restoration of the Mau forest and continued tree planting campaigns on individual farms were some of the achievements in the sub-sector in 2009.

Mau Forest is the largest indigenous montane forest in East Africa. The Mau Forest complex has an area of 273,300 hectares (675,000 acres). The forest area has some of the highest rainfall rates in Kenya. Mau Forest is the largest water catchment area in Kenya. Numerous rivers originate from the forest, including Southern Ewaso Ng'iro, Sondu River, Mara River and Njoro River. These rivers feed Lake Victoria, Lake Nakuru and Lake Natron. Westerns slopes of the Mau Escarpment are covered by Mau Forest.⁸

The forest has been traditionally inhabited by Ogiek people, whose hunter-gatherer lifestyle is sustainable. However, due to immigration from of other ethnic groups, parts of the forest area have been cleared for settlement. In 2008, the inauguration of the Sondu-Miriu hydro power plant was postponed due to low water levels that are said to be

⁷ Economic Survey, *Publications of Kenya National Central Bureau of Statistics*, (Ministry of Finance and Planning, 2010)

⁸ UNEP (2009), Kenya: Atlas of Our Changing Environment, Printed by Progress press company ltd Malta; London

resulting from the destruction of Mau Forest.⁹ The purpose of the research study is to find possible solutions to redress the issues of deforestation and provide a framework in which these challenges can be mitigated in future.

Statement of the research problem

Deforestation has been regarded as one of the major problems inhibiting development efforts in Africa including Kenya. Center for Economic Research on Africa states that, Africa's environment, in both its natural and socio-economic dimensions poses a fundamental challenge for economic development.¹⁰ By most measures, Africa's environment is undergoing increasing stress, calling into question many long-held assumptions regarding existing policies and calling for a new economic agenda. In Kenya for example, In October 2006, a coalition of human rights organizations including Amnesty International, the Centre on Housing Rights and Evictions (COHRE) and the Kenya Land Alliance visited the Mau Forest Complex to investigate the extent of forced evictions from the Mau forest. The Kenya National Commission on Human Rights accompanied them. The coalition found that the Government of Kenya has failed to tackle the underlying problems which contribute to forest destruction. While it has forcibly evicted thousands of poor families from small plots, few of the powerful political

⁹ ibid

¹⁰ Centre for Research on Africa, Environmental Policies for Sustainable growth in Africa, (New Jersey, 1991)

¹⁰ Amnesty International: Kenya Nowhere to go: Forced Evictions in Mau Forest Briefing Paper, May 2007

actors in the illegal allocation of public land have been subjected to investigation and prosecution.¹¹

The direct involvement of political leaders in the Mau Complex evictions stands in the way of the government's resolve to rid the forest of illegal settlers. A commission, chaired by Paul Ndung'u, had been appointed by President Mwai Kibaki in 2003 to investigate the illegal allocation of public land throughout the country.¹² The commission submitted its report, commonly referred to as the Ndung'u report, to the President in June 2004. The Ndung'u report says, the objective of the then government was to allocate forest land to reward influential political personalities in the former KANU regime. From the foregoing, it is obvious that the Mau Complex issue will always evoke emotions whenever it is mentioned.

The problem is therefore to establish what options are available to address the Mau issues and create a climate for sustainable growth in Kenya. Literature on deforestation suggested a number of factors which contribute to deforestation. These include: Growing population pressure leading to intensified use of marginal lands for fuel wood, woodlands clearing for agriculture and building materials, construction of major infrastructure such as roads, Overstocking, shift cultivation, desertification leading to encroachment in forests, relative absence of technological change in African agriculture and political interference in resolution of Mau forest protection. This study therefore seeks to establish

¹¹ Daily Nation, July 22, 2008: Selfish interests threaten Mau forest

¹² Daily Nation, July 22, 2008: Selfish interests threaten Mau forest

whether this holds in the Kenyan context, and is there Diplomacy in Mau forest regarding Deforestation?

Objectives of the study

The overall objective of the study is to critically evaluate measures to be undertaken regarding Mau forest restoration.

More specifically the study aims to:

- Provide an overview of the Mau forest;
- Analyze the causes of deforestation in Kenya; case study on the Mau;
- Explore the role of diplomacy to deforestation in Kenya, case of Mau forest.

Literature review

Literature review has to evaluate the research topic from different angles and across different opinions. This chapter will generally analyze literature on finding diplomatic solutions to deforestation in Kenya. The literature review will consider scholarly debates on deforestation, deforestation in Kenya case of Mau forest, In addition, this chapter will try and look at whether there is a direct relationship between Mau evictions and political influence regarding Mau restoration. The literature on deforestation will concentrate at reviewing the scale of the problem, what drives ecosystem degradation and finding who is responsible in maintaining the ecosystem. In the process, it will compare and contrast arguments of scholars, arguments both for and against the theme, all this will be done to put the topic of this research study in context.

Deforestation issues have emerged as a major threat to security in the modern international system. According to Green the emergence of scientifically supported evidence of risks emanating from deforestation threats led to the elevation of forest resource issues from low politics to high politics of diplomacy and international relations.¹³ Morgenthau's analogy of high politics and low politics is premised on power relations and national interest among states. His contribution to this study is that, issues that are important to the survival of states are graded as high politics, and high politics issues threaten security and survival of states.¹⁴ Therefore state is forced to dominate their management to guarantee its survival. It's perhaps on this basis that the Kenyan government has dominated the Mau forest Restoration and Mau Eviction Program.

In Mau forest, environmental degradation is dominant; according to Gleditsch, degradation exists in many shades that include; deforestation, water scarcity and soil erosion. Resources constrain on the other hand is engulfed in structural sharing of resources.¹⁵ The basis of structural differences is the manner in which powerful politicians are awarding themselves with acres and acres of the forest while the peasant farmer who has less or no say is evicted from the forest, widespread drought which has led to water and also the water and electricity rationing across the country.

Barston says that ideally the existence of a resource such as forest should be a source of wealth and wellbeing to the community, but the Mau forest which is a major catchment

¹³O. Green, "Environmental Issues in Baylis J et al, The Globalization of World Politics, Oxford, 2001 p. 338

¹⁴ H.J Morgenthau, *Politics Among Nations*, 3rd edition (New York; Alfred A. Knopf: 1996)

¹⁵ N.P Gleditsch, (1970), Environmental Change, Security and Conflict, p.53

area and a source of water to a large population have exhibited potential to be a source of conflict and theme of debate.¹⁶ This is accredited to the fact that within and outside Mau forest, there has been a growth in population since the 1960's. The growing population is forced to move to the forests where there seems to be available resources like land and water for agriculture to cater for their basic survival contrary to a smaller population in the past. Homer Dixon says that when a natural resource is kept constant but the number of people depended on it increases, can stimulate conflict. Homer Dixon distinguishes three forms of resourced degradation and scarcity as demand induced, supply induced and structural induced. Demand induced scarcity results from population growth, supply induced results from depletion and degradation of resources while structural induced results from unequal distribution of resources.¹⁷

Apart from demand induced conflict, Ochieng R. argues that weak governance and unequal distribution of resources presents fertile grounds for deforestation threats to prevail.¹⁸ Kenyan government lacks strong governance structures due to internal conflicts. Additionally, the dominance of powerful people in the government on the ownership of Mau forest provides a recipe for other officials and other settlers including the initial settlers to increase their demand for their share and creates course for eventual crimes

¹⁶ R. P Barston, (1988), Modern Diplomacy, Longman, London, P.184

¹⁷ T. F. Homer-Dixon, on the Threshold: Environmental Change as causes of Acute Conflict in: International Security, vol. 16, No. 2 (fall 1991), pp. 76-116.

¹⁸ R. Ochieng, (2009), A review of degradation status of the Mau Forest and Possible Remedial Measures (Wageninger University) pp. 15-24

In comparison, Hudson disputes the above claim and argues that resources are often a source of cooperation rather than a source of conflict, he continues by saying that forest as a resource can be used to strengthen relations when used for economic purposes.¹⁹ On the contrary, deforestation of the Mau forest can contribute to conflict indirectly; it has potential to intensify structural conflicts within society since surrounding communities cannot achieve their full potential from the resource. Pander H. supports the above view and adds that inequality in forest ownership including marginalization of communities from efficient use of the forest by intercropping and dominance by one powerful figures. while the majorities in the society suffers.²⁰

Collier argues that conflicts are common in countries with weak economies and which are dependent on natural resources. In this case, he notes that, government's role in legislating law and order and creating policies on natural resources. In this case, he notes that, government's role on natural resource exploitation determines what one can do with lack of diplomacy in matters of resource loss. Kiyiapi differs with Collier, his argument is that Mau settlers and evictees should belong to institutions if they are to be protected and avoid conflict. There are a number of institutions supporting the cause for forest and human protection, for instance, the Human Rights Watchdog and NGO's such as Greenbelt Movement.²¹

¹⁹ S. Bahta, 'Equitable Resource Management and Regional Security in the Horn of Africa in Makumi Mwagiru (ed) Human Security, Setting the Agenda for the Horn of Africa, Africa Peace Forum, 2008, Nairobi p. 116

[&]quot;H. Pander, (1995), Study on the Land Tenure and Land Policy in the Transmara District. Situation and Conflicts: Transmara Development Programme. ²¹ J. L Kiyiapi, (1995). Contrasting Forest Conditions in Transmara: Characterization, Management Questions and

Suggestions. The Examples of Emperue and Nyakueri Forests, Commissioned by GTZ/TDP

On the other hand, the ministries, Forestry and Wildlife, Land and Environment have a duty to manage and restore the Mau. At local level, Environment conservation, in particular sustainable forest management has been complex due to complexity of issues and the large range of stakeholders in the Mau. The government established a Task Force to access build consensus and make recommendations on the rehabilitation of Mau. In addition, an Interim Coordinating Secretariat was also appointed to co-ordinate the implementation of the Mau Task Force recommendations as approved by the Cabinet and Parliament. At the International level, East African Community Protocol on the Management of Environment and Natural Resources is a major instrument in the implementation of projects and programmes in environmental resource production.

Additionally, COMESA member states support economic activity through efficient and sustainable utilization of natural resources, by fostering cooperation and concerted measures. The interim coordinating has a role to mitigate Mau degradation problem. So far, in the 1997 global climate agreement, the Kyoto Protocol, policies related to deforestation and degradation were excluded due to the complexity of measurements and monitoring for the diverse ecosystems and land use changes. This exclusion resulted in the formation of the Coalition for Rainforest Nations. Participant nations included Papua New Guinea, Costa Rica and other forest nations.²²

²² Myers, Erin C. (Dec 2007). "Policies to Reduce Emissions from Deforestation and Degradation (REDD) in Tropical Forests" (PDF). Resources Magazine: 7. Retrieved 2009-11-24.

In 2005, at the 11th Conference of the Parties (COP-11), the Coalition for Rainforest Nations initiated a request to consider 'reducing emissions from deforestation in developing countries.' The matter was referred to the Subsidiary Body for Scientific and Technical Advice (SBSTA). The United States challenged the proposal but failed in its attempts. Later, at the 2007 Bali UNFCCC meeting (COP-13), an agreement was reached on "the urgent need to take further meaningful action to reduce emissions from deforestation and forest degradation". The deadline for reaching an agreement on the specifics of an international REDD mechanism, at least as regards to its being implemented in the short and medium term, was set to be the 15th Conference of the Parties to the UNFCCC (COP-15), which was held in Copenhagen in December 2009.²³

Main actors in the REDD activities were undertaken by national or local governments, NGOs, the private sector, or any combination of these. A number of NGOs, development agencies, research institutes and international organizations supported developing countries that wish to engage in REDD activities. The World Bank's Forest Carbon Partnership Facility, the UN-REDD Programme, and Norway's International Climate and Forest Initiative are such examples. The genuine actors of REDD, however, will be the populations whose livelihoods derive from forests. Indigenous Peoples and forest-dependent communities will be the front liners of REDD, and the success of REDD activities will largely depend on their engagement.

²³ Von der Goltz, Jan (August 10, 2009), High Stakes in a Complex Game: A Snapshot of the Climate Change Negotiating Positions of Major Developing Country Emitters, Center for Global Development

The REDD+ is more than just avoiding deforestation. It is tied to measurable and verifiable reduction of emissions from deforestation and forest degradation as well as sustainable management of forests, conservation of forest carbon stocks and enhancement of carbon stocks.²⁴ This is because a REDD strategy need not refer solely to the establishment of national parks or protected areas; by the careful design of rules and guidelines, REDD could include land use practices such as shifting cultivation by indigenous communities and reduced-impact-logging, provided sustainable rotation and harvesting cycles can be demonstrated²⁵. Some argue that this is opening the door to logging operations in primary forests, displacement of local populations for "conservation", increase of tree plantations. According to some critics, REDD+ is another extension of green capitalism, subjecting the forests and its inhabitants to new ways of expropriation and enclosure at the hands of polluting companies and market speculators.

As for Mau Forest, it is only phase one and two of Mau restoration that involved removal of poor small scale farmers from various sections of the Mau and the Greenbelt Movement led by the Late, Nobel Laureate W. Maathai on tree planting and awareness campaigns on forest protection. The plan of action of the Interim Coordinating Secretariat based on a phased approach, the repossession of forest land which comprises five phases. These two phases deal with forestland for which no title deeds have been issued or are still in existence. The other three phases which deal with the delicate issues of

²⁴ UN-REDD Programme (March 2010). "US\$14.7 million approved for three countries at the UN-REDD Programme's 4th Policy Board Meeting in Nairobi". Retrieved 2010-01-12.

compensation and resettlements which was to be implemented from early 2010 onwards.²⁶

Co-operation on Mau resettlement programmes is not a totally new attempt. There have been efforts deployed before by the government to bring Mau back to its original place. The endeavors include; the Interim Coordinating Secretariat held two co-ordinations and planning workshops for field officers in Nakuru. These workshops helped build a full understanding, among field officers of the issues at hand and the government's response to address them. The field officers, in particular those from the Provincial Administration, Kenya Forest Service, Kenya Wildlife Service and Kenya Police, were requested to inform the affected communities on the same. An information kit developed by the interim Coordinating Secretariat was sent to all relevant field officers to help the process of disseminating information. Nevertheless, The Interim Coordinating Secretariat has a role to mitigate Mau degradation problem.²⁷

However, Olang Luka says, that attempts at co-operation under this arrangement were destined to fail because the two phases of resettlement dealt with forest land evictions and not the victims themselves hence could not win the confidence of the evictees.²⁸ Additionally there were no title deeds to be issued to the evicted from the Mau forest. For example; the evictees demonstrated to various government offices including the Prime Minister office to demand for proper resettlement plan.

²⁶ M. Njagih, Special Fund to Restore Water Towers Created. Standard Digital : 20 August 2010

²⁷ The Interim Coordinating Secretariat (2009), Office of the Prime Minister, Chief Coordinator, A Compilation of Mau Forest Complex; A key water tower (Nairobi, Kenya)

²⁸ Olang. Luka, Deforestation and Land Degradation of the Mau Forest Complex in Eastern Africa: A Review for Conservation and Restoration Purposes. Environmental Monitoring (in Tech Publishing Croatia: 2012).

In addition, bilateral efforts could not fair any better. Ochieng R. argues that cooperative resources management is complex in any system whether local or international, he cites the case where most states are characterized by rapidly growing population, water scarcity and demand, poverty and extracting timber from forests prior to clearing for agriculture. The Mau forest restoration secretariat started with a participatory process of dialogue with the Mau evictees that resulted in them, agreeing to be resettled and then leaving the Mau forest so that the government can achieve sustainable socioeconomic development through proper management.

The lack of an overreaching institution is expounded by Okoth-Ogendo H. who argues that until the beginning of the twentieth century, cooperation programs related to resource represented a small percentage.²⁹ In addition, Ludeki , Wamukoya and Walubengo says that colonialism and weak political government blurred the issue of co-operative between the people and the government. They also observe that, the thrust of diplomatic efforts was to establish a belief that Mau restoration and resettlement program were successful.³⁰ The first stage which included repossession of forest land and compensation and resettlement of evictees saw phase I and II go through. But later on Phase III, the Mau Secretariat faced a complex situation, it was not able to trade its mandate of providing a framework for the sustainable management not only of the Mau forest ecosystem but also

²⁹ H.W.O. Okoth-Ogendo, *Tenants of the Crown: Evolution of Agrarian Law and Institutions in Kenya*. African Centre for Technology Studies, 1991, (Nairobi: Kenya)

³⁰ Ludeki, J. V. Wamukoya G & Walubengo D., Environmental Management in Kenya: A framework for Sustainable forest Management in Kenya – Understanding the New Forest Policy and Forest Act, 2005 (Publisher: Centre for Environmental Legal Research and Education)

other water towers of Kenya. Additionally, no title deeds have been issued or are still in existence hence putting the livelihoods of the evictees on a danger spot.

The Ndungu Report 2003 says that during the implementation stage, the above stage was marked by a shift of interested parties. It shifted from a social issue to a political issues that involved powerful political, each giving their view about the Mau yet they own vast acres of land. Ochieng R. view is that, co-operation over trans-boundary resources are played out in power determined contexts. A World Bank report reported that the main attempts to common use of Mau resources was through a state sponsored initiative known as the Forest Carbon Partnership Facility (FCPF), this fund is aimed towards initiating REDD activities in developing countries.³¹

In addition, bank facility, the Carbon Partnership Facility (CPF) is expected to be used in areas like the power sector, transportation urban development and other areas related to energy efficiency where greenhouse gases are generated. If it was signed and ratified, the agreement would have created a permanent solution that involves all parties. A 2011 World Bank study of forest management has ignited further interest in concluding that forests managed by communities had lower deforestation rates in the period 2000-2008 than those enjoying legal protection. This difference was even greater where the communities were indigenous groups.

³¹ The World Bank Group. October 11, 2009, Two New World Bank Facilities will help Fight Climate and Deforestation.

Scarcity theory argues that conflicts are present because individuals have different interests, needs and values; hence people often fight to get access to the unlimited resources. By extension, Wass argues that, inequity in resource management including marginalization of certain sectors of the society from sharing in the resources, access or benefits from equal opportunity breeds into a conflict.³² Out of the owners of the Mau, 10 are among the poorest in the country. World Bank Report states that, the state of poverty coupled with alarming population explosion and environmental degradation necessitated Mau forest Restoration and Conservation and hence reviews of 1999 Environment Management and Co-ordination Act.³³ However, the impacts of past extensive destruction of forests, including 2001 excisions are already being felt. Some of the known direct impacts include; water scarcity for instance in the Mara River and loss of biodiversity.

In summary, Ochieng. R concludes that co-operative resource management is very complex. In Kenya and specifically in Mau Forest, most people are characterized by rapidly growing population, water scarcity, poverty and demand for water.³⁴ Olang Luka, sums it up and says that degradation of the forest stems from activities of the surrounding communities, overpopulation and weaknesses in national laws and their enforcement

¹² P. A. Wass, (ed) 1995. Kenya's Indigenous Forest. Status, Management and Conservation. IUCN, Gland, Switzerland, and Cambridge, UK. pp. 205

³³ The World Bank Group, World Bank Report on Population Growth and Poverty; 2011

¹⁴ R. Ochieng, (2009), A review of degradation status of the Mau Forest and Possible Remedial Measures (Wageninger University)

Justification of the study

The study focuses on ways to find solutions to bridge the gap between population growth and the need for adequate land, the forest cover has gone down meaning the water sources are also drying which in turn leads to conflict over the scarce water resource that is shared by other neighboring countries like Uganda, Tanzania and Ethiopia since the Mau is the source of most rivers in this regions.

Development objectives and the need to protect and maintain the natural environment must go hand in hand. This is because environmental sustainability, including the conservation of biodiversity, underpins human well-being.³⁵ Our natural environment not only provides us with the basic goods needed for sustenance, such as water, food, and firewood, but it also purifies the air and water, produces healthy soils, cycles nutrients, and regulates the climate. These ecosystem services provided by the environment are important for developing and maintaining human health, creating national wealth, and reducing poverty.

It is cognizant that achieving Vision 2030 depends on maintaining the natural systems that support agriculture, energy supplies, livelihood strategies, and tourism. To support the social pillar, Kenya aims to provide its citizens with a clean, secure, and sustainable environment by the year 2030. To achieve this, the nation has to set goals such as increasing forest cover from less than three per cent of its land base at present to four per

³⁵ UN, Environment and Human Well-being, UN Millennium Project; 2005

cent by 2012 and to lessen by half all environment related diseases by the same time.³⁶ Among the strategies for achieving these goals are the following: promoting environmental conservation to help achieve the Millennium Development Goals (MDGs), improve the capacity for adaptation to the impacts of global climate change and harmonize environment-related laws for better environmental planning and governance.

Additionally to address the Mau issue that has been politicized yet it's a major social issue that needs some diplomacy like civic education and getting the evictees guided on how the eviction is going to be done unlike chasing them without giving them an alternative solutions.

Hypotheses

The study will examine the following hypotheses;

- Mau forest stakeholders lack a comprehensive forest security strategy to oversee the use and utilization of resources in the Mau forest complex;
- Cooperative engagement of unofficial actors in the Mau forest complex can contribute and enhance forest security;
- Inclusion of all unofficial actors has a strong implication on the search for lasting solution to deforestation in Kenya.

¹⁶ UNDP, Environment, Energy and Climate Change, Social Pillar of Vision 2030; Nairobi; 2007

Conceptual framework

The previous section on literature review outlined some of the major challenges to past research in the field of forest conservation and management. This section unearths three fundamental issues of deforestation. It criticizes the manner in which causality is constructed, highlights the importance of differentiating between eco-centric and anthropocentric philosophies, and stresses the need to consider the motivations and perspective of actors involved.³⁷

A. Westings and Homer-Dixon say that there seems to exist some consensus in the field of deforestation literature on how to approach the topic;³⁸ through a causal construct or a cause of deforestation line of inquiry that qualitatively or quantitavely connects the status with forest resource conflict.³⁹ The main dilemma of such an approach can be well illustrated with an example representative of the literature. In their review of deforestation-induced conflicts, Carius and Imbusch assert, deforestation leads to environmental changes and increasing scarcity of natural resources play a decisive role in the emergence of conflicts.⁴⁰ According to the authors, the context variables encompass cultural circumstances and traditions, ethno-political factors, civil society mechanism of peaceful resolution, the stability of the interior policy system and finally societal, economic and technological capability.41

³⁷ T. Homer-Dixon, The Project on Environment, Population and Security: Key Findings of Research, Environmental Change and Security Report, 2: 1996, pp. 48

A. Westings, ed. Global Resources and International Conflict: Environmental Factors in Strategic Policy and Action (Oxford: Oxford University Press, 1986.)

Ohlson, 1999, op. cit., pp 49

⁴⁰ Carius A and Imbusch K., Environmental and Security in International politics- An Introduction in : Environmental Change and Security : A European Perspective, op. cit., pp 20 ⁴¹ ibid

Serious doubt arise as to such an approach that first labels deforestation as a single-issue and subsequently adds a large number of intervening non-environmental variables in later tages of analysis. This procedure is characteristic for much of the literature, and it lemonstrates that the 'causal paradigm' that is the pre-conceived notion that leforestation causes conflict – has not been useful in explaining relations between the brest loss and cross-border conflict.⁴²

Although the natural environment represents material matrix in which human interactions ire inscribed, the reason why the environment matters to people is not well specified. The iterature regards ecological phenomena as independent variable in explaining causal athways to deforestation. Surprisingly, the selection of explanatory variables such esertification, freshwater availability or arable land is often accompanied with vague xplanations as to why they are relevant in the causation of deforestation.

Homer-Dixon of the environment conflict school assume that the environment has the apacity to modify the behavior of societies by "causing" conflicts when concomitant vith a number of political, economic and social factor.⁴³ The question arises as to where his capacity stems from. Intrinsically natural phenomena such as earthquakes, flooding r rapid process of soil degradation provoke immediate responses by human beings. These events don't embrace urgency in sociological sense. The question as to why and ow nature possesses the capacity to stimulate and transform human behavior remains nanswered. This challenge cannot be resolved through definitional exercise,

P. M. Hass, Constructing Environmental Conflicts from Resource Scarcity, Global Environmental Politics, 2: 2002,

T. Homer-Dixon, On The Threshold: Environmental Changes as Causes of Acute Conflict, International Security, 3, 1991, pp. 76-116

methodological innovations or large empirical samples. It depends on whether one adopts a more eco-centric or more anthropocentric philosophy.

Literature on deforestation remains an answer in the quest for its underlying question.⁴⁴ In order to circumvent the weaknesses of the existing literature, the available literatures provides background and history to my study in achieving the objectives which involves shifting from a purely objective analysis of issues to one that takes into consideration , intentions, meanings, and logic for action by local groups. And finally the analysis of resource use patterns and conflict requires a thorough understanding of an institution that shapes the rules and rights of forest use and conservation.⁴⁵

Research methodology

This study will adapt a case study method. It will utilize both primary and secondary data. Primary data will be collected through interviews with members of the public especially those from NGO's and those from the Ministry of Lands and Forest Department among others. Academicians and UNEP officials, Nairobi office, will also be interviewed. Secondary data will be obtained from the Library research – from books, journals, periodicals, magazines, newspapers, seminars/conference papers, UNEP, Africa Union, COMESA reports and other documents as well as unpublished scholarly works on forest conservation shall be used. Kenyan government ministries/agencies

⁴⁴ R. D. Lipschutz, Environmental Conflict and Environmental Determinism: The Relative Importance of Social and Natural Factors, In: *Conflict and the Environment*, op. cit., pp. 35-50

⁴⁵ L. Ross, "What Do We Know About Natural Resource and Civil War?", Journal of Peace Research, 41; 2004, pp 337-356

reports/documents will also be used. Internet sources will also be used as reference material.

The Research Design will involve qualitative and quantitative surveys as well as population study of the people of Kenya. This will entail observation and face to face interviews of the targeted population. In addition, sample of population will be drawn from the population of Kenya and a unit of analysis to which the hypothesis will apply. The research will employ a combination of observation, and interviews to identify the intensity of the causes, effects and challenges of deforestation on the people and completed within the specified time.

The sampling design and procedure will involve a sample collected using simple random sampling and Area cluster sampling depending on the intensity of the problem. This method will be appropriate to use because there is least biasness and the results can comfortably be generalized. Also, with area cluster sampling, the study will be able to locate Kenya from the map of Africa and that shows the entire region hence a sample is taken and data is obtained from the residents of the area chosen. Finally, data analysis, analysis of the data obtained from the research will involve qualitative and quantitative techniques. Simple descriptive method such as tables will be used. Data received will be objectively looked through and a conclusion reached based on empirical valuation and inferences.

Chapter outline

This study shall be composed of five chapters;

- Chapter one Introduced the topic of research study, the statement of the problem, the justification, the theoretical framework, the literature review, hypotheses, and the methodology of the study.
- Chapter two examined the historical overview of deforestation and its manifestation in Kenya
- Chapter three discussed The Case study Mau Forest and Diplomacy. It analyzed Mau Forest deforestation, the types of diplomacy and actors of diplomacy in Mau forest and finally proposed diplomatic solutions to Mau Forest Restoration.
- Chapter four is a scholarly chapter and dealt with pulling issues that were identified from chapter One to Chapter four then used the conceptual framework to analyses them and create new knowledge. At the end it examines if the hypothesis identified in chapter are achieved
- Lastly chapter five is the conclusions and recommendation on the study

CHAPTER TWO

TOWARDS FINDING DIPLOMATIC SOLUTIONS TO DEFORESTATION: AN OVERVIEW

Introduction

Chapter one analyzed literature review on deforestation and the types of actors that are involved in the Mau forest. This chapter will introduce the general concept of deforestation and discuss its development in the national and international level. Deforestation will be examined from 1963 when issues of deforestation revolved around physical cutting down of smaller quantities of trees just for firewood purposes by the communities living around and within the forest, the modern understanding of deforestation which was in the period of 1980's when issues of deforestation and environment emerged, and finally climate change in the 1990's.-2011.

Since the emergence of deforestation, there seems to exist some consensus in field of deforestation literature on how to approach it. The line of inquiry that qualitatively or quantitatively connects the status with forest resources conflict¹. Carius and Imbusch assert, deforestation leads to environmental changes and increasing scarcity of natural resources play a decisive role in the emergence of conflict². Butler defines deforestation as the removal of forest stand where the land is put to a non forest use an example is conversion of forestland for agriculture or urban use³. And the corresponding extent to

¹ Ohlson, 1999, op. cit., pp 49

² A. Carius, and Imbusch K., *Environmental and Security in International politics*- An Introduction in: Environmental Change and Security: A European Perspective, op. cit., pp 20

³ Butler, Rhett A. Impacts of Population and Poverty on Rainforest, 20

which actor's interest can be accommodated through diplomacy, without recourse to violence on the basic of mediation, rule and norm setting⁴.

In contemporary society, deforestation issues can be analyzed from three perspectives corresponding to three phases of development of deforestation. These perspectives are; the international level, to nation state and the individual view⁵. At the international level, deforestation is thought to in terms of a global issue for all nations. At the national level, it is considered in terms of threats to communities around those depending on the forest, here, diplomacy is used as a state craft of force which employs action such as communicating and representing the country in all aspects using '' state interest'' as the propagating tool pursuing its own economic and political gain⁶. At the individual level, deforestation is considered in terms of the relationship between the state and the individual and the extent to which states incorporate interests of individuals within their national interests considerations.

The concept of deforestation

The urgency surrounding climate change has created opportunities to embed deforestation targets within international commitments on emissions⁷. This concentration of environmental, cultural and economic value has not protected the tropical forest from rapacious destruction. The sensitivity of the forest ecosystem is such that the current rate of extinction of plant and animal species through global deforestation is believed to be

⁴ R.P. Barston, 1988, Modern Diplomacy, Longman, London p. 184

⁵ N. P Sharma, (ed) 1992. Managing the World's Forest: Looking for Balance Between Conservation and Development. Kendal/Hunt Publishing Co., IOWA

⁶ R.P Barston, Modern Diplomacy, 3rd Edition (Harlow: Pearson Longman, 2006) Chapter 7

⁷ J. Schelhas and R. Greenberg, Forest Patches in Tropical Landscapes, (eds). (Island Press, 1996

1000 times greater than that in pre-human history. Figures published in 2007 by Intergovernmental Panel on Climate Change that deforestation contributes 17.4% of global green house gas emissions, more than entire world transport system.⁸

The overall trend in tropical deforestation is immensely sensitive to fickle political developments in the three major forest countries, Brazil, DRC and Indonesia. In the DRC, as in Africa generally, the rate of deforestation has been relatively modest due to inaccessibility and political risk. But the country embraces about 50% of the vast Congo basin rainforest and is entering a key period as it opens up to foreign investment⁹.

Deforestation has been aided and abetted by weak national governance prevalent in the developing countries where most tropical forests are located. Most tropical forests are owned by the state, with forest people relying on custom rather than legal tenure. Their rights and livelihoods are too easily brushed aside by powerful state-supported individuals or corporations, fuelled by the kickbacks of timber concessions. Laws designed to protect forests and their communities too often remain unenforced.¹⁰

In sub-Saharan Africa, deforestation and forest degradation have also been driven by the imperatives of extreme poverty that pervades the forest regions, as well as small-scale logging enterprises. Poor farmers seek quick returns through "slash and burn" methods of shifting cultivation at the forest periphery. For analytical considerations the terms

⁸ N. Myers, 1993. "Tropical Forests: the Main Deforestation Fronts." *Environmental Conservation* 20 (No.1, Spring): pp 9–16.

⁵S.M Meyer, 1995. 'The Economic Impact of Environmental Regulations.' Journal of Environmental Law and Practice 3 (2): 4-15

¹⁰ T. Reardon, and S. A. Vosti. 1995. "Links Between Rural Poverty and the Environment in Developing Countries: Asset Categories and the Investment Poverty." *World Development* 23 (No.9, September): 1495–1506.

deforestation will be defined in this study as the complete conversation of an area of forest to a different land use.¹¹

The conceptualization of deforestation has been shaped by a history of destruction and land degradation, the various deforestation conceptualization used are under-pinned by the emphasis placed on the group under consideration.¹² Here, the study in the development of deforestation can be traced from 1960's since then, it has arguably evolved through the three periods.

Deforestation in the 1960 - 1980

Rainforests have decreased in size primarily due to deforestation. It was in the 1960s that deforestation became more widespread, chiefly from the removal of forest to make way for cattle ranching to raise national revenue during a period of high world beef prices, to eliminate hunger and to pay off international debt obligations.¹³ Extensive transportation projects, such as infrastructural development, were promoted in 1970, meaning that huge areas of forest were removed for commercial purposes.¹⁴

By the end of the 1980s, the removal of forests had become a serious global issue, not only because of the loss of biodiversity and ecological disruption, but also because of the large amounts of carbon dioxide (CO₂) released from burned forests and the loss of a valuable sink to absorb global CO₂ emissions¹⁵. At the 1992 UN Framework Convention

¹¹ P. Harrison, 1987. The Greening of Africa. London: Paladin Grafton Books

 ¹² R. S. J Tol, 2008. "Why Worry about Climate Change? A Research Agenda" Environmental Values 17 (4): 437-70
¹³ A.L. Hall, (1989) Developing Amazonia, Manchester: Manchester University Press.

¹³ A.L. Hall, (1989) *Developing Anazonia*, Malchester, Malchester Oniversity Press. ¹⁴ M. Williams, (2006). Deforesting the Earth: From Prehistory to Global Crisis. Chicago, IL: The University of

Chicago Press.

¹⁵ E.B. Barbier, J.C. Burgess and A. Markandya. 1991. "The Economics of Tropical Deforestation". Ambio 20 (No. 2, Apr.): 55–58.

on Climate Change, deforestation became a key issue addressed at the Summit in Rio de Janeiro. Plans for the Compensated Reduction (CR) of greenhouse gas emissions from tropical forests were set up to give nations like Brazil an incentive to curb their rate of deforestation.¹⁶

In 2002, Brazil ratified the Kyoto agreement as a developing nation in the non-Annex I category of countries. These countries do not have carbon emissions quotas in the agreement as developed nations do. In 2006 Brazil proposed a direct finance route to deal with the Reduced Emissions from Deforestation and Degradation in Developing Countries, or REDD, issue, recognizing that deforestation contributes to 20 percent of the world's greenhouse gas emissions. The competing proposal for the REDD issue is a carbon emission credit system, where reduced deforestation would receive "marketable emissions credits". In effect, developed countries could reduce their carbon emissions, and approach their emissions quota by investing in the reforestation of developing rainforest countries.¹⁷

The new conceptualization of deforestation argues that the threat to forest loss is only one of the many threats that the government must now address. The new threats derive directly or indirectly from the rapidly changing relationships between the environment, climate change and resources. The unfolding stresses in this relationship initially manifest themselves in concept of deforestation as ecological stresses and resources scarcities,

¹⁶ V. Skole, and C. Tucker. 1993. "Tropical Deforestation and Habitat Fragmentation in the Amazon: Satellite Data from 1978 to 1988." Science 260 (June 25): 1905–1910.

¹⁷ S. Barrett, 2003. Environment and Statecraft: *The Strategy Environmental Treaty-Making*. Oxford: Oxford University Press.

later they translate into economic stresses, conflict, competition and poverty which pose a challenge to the forest.¹⁸ The period of 1960's to 80s marked as a whistle blower to governments and all stakeholders involved in environment sustainability and conservation to quickly start addressing the issues of forest loss.

Deforestation in 1990 - 2011

Rainforests are the oldest ecosystems on earth. Deforestation rates have increased since the 1990-2011 period, some 13 million hectares of the world's forests are still lost each year, including 6 million hectares of primary forests. Industrial logging, clearing and forest conversion for agriculture, fuel wood collection by rural poor, and forest fires often purposely set by people are considered the leading causes of deforestation.¹⁹ Africa suffered the second largest net loss in forests with 4.0 million hectares cleared annually after the Amazon. Nigeria and Sudan were the two largest losers of natural forest during the 2000-2005 periods, largely due to subsistence activities. At 11.1%, Nigeria's annual deforestation rate of natural forest is the highest in the world. Malawi, currently in the midst of a severe drought and famine, has the world's fourth highest deforestation rate.²⁰

The emerging concept of deforestation is based on a broad view to include social, economic, political and cultural effects resulting from forest loss and less attention paid to this issue. This concept challenges the traditional notion of viewing deforestation as a

¹⁸ T.J Barbera, and V.D McConnell. 1990 "The Impacts of Environmental Regulations on Industry Productivity: Direct and Indirect Effects" Journal of Environmental Economics and Management 18 (1): pp 50-65

¹⁹ T.J Barbera, and V.D McConnell. 1990 "The Impacts of Environmental Regulations on Industry Productivity: Direct and Indirect Effects" Journal of Environmental Economics and Management 18 (1): 50-65

²⁰ ibid

less topical issue of discussion.²¹ The period of 1990 – 2011 marked a paradigm shift on a number of issues in deforestation, it introduced new actors who participated in agenda setting, new dimensions of deforestation and perspectives of deforestation. Deforestation issues were the first to be considered due to the importance of the environment. The field grew in new directions including forest loss, resources conflict, desertification and food and water insecurity.²²

The expansion of the concept of deforestation into social, economic and political issues led to the reconsideration of the political structures through which deforestation can be contained. With the expansion of the concept of deforestation issues, deforestation threats were also perceived in broader terms. While threats to the communities were primarily identified in terms of social terms, societies and individuals face a multitude of dangers ranging from the inadequacies of political and social structures, to environmental degradation.²³

Deforestation calls for a shift in social thinking aspects as that of a social issue to a political and economic issue. The debate about forest loss and resettlement of persons concerns the involvement of all sections and looking at deforestation holistically. Structural violence exists when resources such as forest or land are unequally shared between members of the society while and physical violence involve demand for protection by the nation state over the conflict at hand.

¹¹ N.P Gleditsch, (1970), Environmental Change, Security and Conflict. pp 45-70

²² S. Scherr, and S.Yadav. 1996. ¹¹ Land Degradation in the Developing World: Implications for Food, Agriculture, and the Environment to 2020, Washington D.C

[🚆] ibid

The UNDP report lists seven separate components of human security namely, economic security, food security, (Physical and economic access to food), health security (relative freedom from disease and infection), environment security (access to sanitary water supply, clean air and a non degraded land system), personal security (security from physical violence and threats), community security (security of cultural identity) and political security (protection of basic human rights and freedoms). The above definition is based on the argument that human and biodiversity symbolizes a multi dimensional and holistic approach to deforestation that is based on the conviction that, forest loss, land degradation, population growth, and poverty, human rights and development are interrelated.²⁴

Homer-Dixon says, for a long time, the concept of deforestation was shaped by social issues only. However, the broadening of other issues such as political and economic and use of the individual as the level of analysis shifted attention of deforestation from community based agenda to national issues.²⁵ For most people today, the scarcity of water, food and increase in prices of commodities, poor infrastructure brings the worries to a more economic and political view and not just a social view. Deforestation has become critical in recent years in particular on issues addressing ecological degradation and natural resource scarcity. Deforestation is relevant to people everywhere, although

²⁴ P. Birnie, 'The role of International law is solving certain environmental conflicts in Carol, J.E (Ed) International Environmental Diplomacy: The Management and Resolution of Transformation Environmental problems Cambridge: Cambridge University press, 1990, pp 99,105 – 126 ²⁵ T. F. Homer-Dixon, on the Threshold: Environmental Change as causes of Acute Conflict in: International Security,

vol. 16, No. 2 (fall 1991), pp. 76-116.

the intensity of the threats may differ from one place to another the potential of forest loss have equal magnitude to individual everywhere.²⁶

Forest loss compliments resources loss by being people centered, deforestation and its manifestation brings the threats that traditionally were not considered as threats to cross border and eventually an international threat. As state continues to have the fundamental responsibility to curb forest loss, deforestation and its manifestation have become more complex and new actors emerged to compliment states, a paradigm shift from state centric to include other actors such as NGO's and the focus is on dealing with the economic, social and political issues of these trends.

Deforestation and its manifestation in Kenya

Deforestation and degradation of forests continue at an alarming high rate, particularly in the tropics. Kenya's annual deforestation rate is estimated at 0.5 %, putting at stake the survival of the timber industry and livelihood of forest dependent communities. ²⁷ In 1963, Kenya had a forest cover of some 10 per cent and by 2006, 1.7 per cent was the remaining cover. The thinning, changing and elimination of forest – deforestation, no less – is not a recent phenomenon; it is as old as the human occupation of the earth, and one of the key processes in the history of our transformation of its surface. More than forty years ago.²⁸ H. Clifford Darby suggested that probably the most single factor that has changed the landscape is the clearing of the woodland, and he may well be right. Indeed,

²⁶ ibid

[&]quot;S. Masinde, L. Karanja, Climate Change Global Corruption: The Plunder of Kenya's food (Nairobi; 2011)

²⁸ H. Clifford Darby, The Landscape as overlapping Neighbourhoods; Some reflection on the struggle for existence (Cambridge: Cambridge University; 1985)

perhaps more of the earth's surface has been affected by this process than by any other single resource – converting activity.²⁹

Literature review looks at the how, why and when humans eliminated trees and changed forests, and so shaped the economies, societies and landscape that lie around us. The cutting down of trees is universal if only because wood, like water, is one of the necessities of everyday life. Every society in every age has used wood for fuel, to keep warm, to prepare food and to provide shelter. These self-evident needs contribute to deforestation and require little explanation. But other human activities that affect the forest are more complex: Agriculture, smelting, shipbuilding, trade, territorial expansion of either aversion to or reverence for trees. To understand these factors one must understand something of the societal, economic and political motives and processes of the society in which people are acting out their ideas and technologies.

Consequently, deforestation is as much as, if not more, about the people that do the clearing as about the number of hectares or acres cleared. There is need for each deforestation story to be firmly rooted in an intellectual and scholarly context that explains the society of the age in which it occurred. From 1963 to date, the events of deforestation were fundamental, extensive and far reaching for the forest. However, one of the aims is to calibrate, however crudely, the extent of deforestation in the past in order to give concrete meaning to the many vague generalisations about the process and to show that deforestation is not a new phenomenon³⁰. The evidence of deforestation is a little like Charles Darwin's metaphoric description of the evidence of the geological

²⁹ E. Estyn Evans, The Ecology of Peasant Life in Western Europe (1956)

³⁰ ibid

record for his theory of the origin and evolution of species. Deforesting the Earth, is also a history imperfectly kept. Just as people have biographies, so forests have their own histories that can be unravelled and documented³¹. William concludes that the above threatens survival of many species of biodiversity other than just forest loss.

Deforestation and emerging issues

Popular global environmental campaigns have played the most effective role in slowing the pace of deforestation. The first major global conference to discuss deforestation was held in 1992 in Rio de Janeiro. Prior to that, deforestation matters were handled through limited agreements such as UN conference on the Human Environment, Stockholm 1972.³² Most of these agreements concluded before 1992 contained only two or three of the necessary parts for effective conservation and management, regulation and enforcement provisions and not scientific advice or institutional implementation.³³

There has been long standing global concern for the fate of tropical forests. Many of the legal statutes which attempts to secure "protected areas" of forest reserves survive from the colonial era. Since the 1972 UN Conference on the Human Environment Stockholm, Rio de Janeiro "Earth Summit", which consisted number of 172, 108 at level of heads of store and some 2,400 representatives of nongovernmental organizations (NGO's) 17,000 people attended the parallel NGO Forum. Twenty years after the first global environment conference, the UN sought to help Governments rethink economic development and find

³¹ M. Williams, Deforesting the Earth; From prehistory to global crisis: An Abridgment (Chicago: The University of Chicago Press; 2006)

Baylis, Steve Smith. 2005. The Globalization of World Politics (3rd ed). Oxford. Oxford University Press. pp.454-455 R.P Barston, Environmental Diplomacy, op, Cit, P.180

ways to halt the destruction of irreplaceable natural resources and pollution of the planet. Hundreds of thousands of people from all walks of life were drawn into the Rio process. They persuaded their leaders to go to Rio and join other nations in making the difficulties decisions needed to ensure a healthy planet for generation to come.³⁴

The Earth summit influenced all subsequent UN conferences, which have examined the relationships between human rights, population, social development women and human settlements - and the need for environmentally sustainable development. The World Conference on Human Rights, held in Vienna in 1993, for example, underscored the rights of people to a healthy environment and the right to develop controversial demands that had met with resistance from some Member states until Rio.³⁵

I

The Kyoto protocol is as international agreement linked to the United Nations Framework Convention on Climate Change. The major feature of Kyoto protocol is that it sets binding targets for 37 industrialized countries and the European community for reducing green house gas (GHG) emissions. These amounts to an average of five per cent against 1990 levels over the five-year period 2008 – 2012. The major distinction between the protocol and the convention is that while the convention encouraged industrialized countries to stabilize GHG emissions, the protocol commits them to do to.³⁶

³⁴ J. Baylis, Steve Smith. 2005. The Globalization of World Politics (3rd ed). Oxford. Oxford University Press. pp.457-512 ³⁵ ibid

¹⁹ J. Depledge, (2000), United Nations Framework Convention on Climate Change (UNFCCC) Technical paper: Tracing the Origins of the Kyoto Protocol: An Article-by-Article Textual History, UNFCCC

Recognizing that developed countries are principally responsible for the current high level of GHG emissions in the atmosphere as a result of more than 150 years of industrial activity, the protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities". The Kyoto protocol was adopted in Kyoto, Japan on 11 December 1997 and entered into force on 16th February 2005. The detailed rules for the implementation of the protocol were adopted at COP 7 in Marrakesh in 2001, and are called the "Marrakesh Accords".³⁷

The Kyoto protocol is generally seen as an important first step towards a truly global emission reduction regime that will stabilize GHG emissions and provides the essential architecture for any future international agreement on climate change and deforestation. By the end of the first commitment period of Kyoto protocol in 2012, a new international framework needs to have been negotiated and ratified that can deliver the stringent emissions reductions, the Intergovernmental Panel on Climate Change (IPCC) clearly indicated are needed.38

The Bali Action Plan agreed at the 2007 conference on the UN Framework Convention on Climate Change (UNFCCC) endorsed the vision that tropical forests should have greater value standing than cut down. It initiated studies into "positive incentives" - the provision of financial compensation for developing countries in return for measurable

³⁷ S. Dessai, (2001), Tyndall Centre Working Paper 12: The climate regime from The Hague to Marrakech: Saving or sinking the Kyoto Protocol?, Norwich, UK: Tyndall Centre ³⁸ Ekardt, F. /von Hövel, A.: Distributive Justice. Competitiveness, and Transnational Climate Protection. In: Carbon

[&]amp; Climate Law Review, Vol. 3. 2009, p. 102-114.

reduction in deforestation.³⁹ There has been broad consensus that this approach, known as reducing emissions from deforestation and forest degradation (REDD), should be a prominent feature of any international climate change agreement that extends or replaces the Kyoto Protocol in 2012. Deforestation was excluded from the Clean Development Mechanism, the method of reducing emissions in developing countries under the Protocol.⁴⁰

The Cancun Agreements reached in 2010 set out in some detail the sequence of preparatory steps that developing countries must follow. Tailored to each country's circumstances, these steps envisage a national action plan, its implementation and eventual full-scale operation when it must be possible to monitor and verify progress by reference to a baseline rate of deforestation. The Agreements go beyond the basic goal of reducing deforestation.⁴¹ The aim is "to slow, halt and reverse forest cover and carbon loss." Qualifying activities have accordingly been extended to include the role of conservation, sustainable management of forests and enhancement of forest carbon stocks.

Although formal implementation now hinges on the overall fate of UN climate negotiations, the donor community has been active in supporting country programmes which are designed to "get ready for REDD." These are led by the World Bank's Forest CarbonPartneshipFaciltyandtheUN-REDDprogramme. Continued delays in the UNFCCC process have prompted the formation of the REDD+ Partnership, an initiative launched in

¹⁹ J.P. Weyant, (ed) (1999). The Costs of the Kyoto Protocol: A Multi-Model Evaluation. *Energy Journal* (Special issue). Retrieved 8 August 2009.

 ⁴⁰ ibid
⁴¹ S. Cassandra (2010). Nations Approve Cancun Climate Package. *The Wall Street Journal*. From the original on 4 February 2011. Retrieved 2011-01-08.

Oslo in 2010 with the aim of coordinating effective programmes to reduce deforestation. Involving over 70 developed and developing countries, the REDD+ Partnership has secured funding commitments amounting to 4.5 billion⁴².

Long term climate finance rising to \$100 billion per annum by 2020 has been promised by the richer countries. Channeled through the Green Climate Fund, this support has to meet all mitigation and adaptation costs of which REDD is just one part. There is a strong case that preventing deforestation will offer the most cost effective returns for the new Fund⁴³. Despite rising food and fuel costs, the cost per ton of REDD-related carbon dioxide reduction may be substantially less than other mitigation options. Nevertheless, halving the rate of deforestation by 2020 has been costed in the range \$20-\$35 billion per annum. For a significant proportion of this cost, the rich donor countries will expect to be granted carbon credits which they can offset against their national emissions targets⁴⁴.

Many developing countries opposed this approach, arguing that carbon offsets encourage "business as usual" fossil fuel consumption. However, the alternative of relying on foreign aid to finance REDD runs the risk that donor countries will fail to commit sufficient funds in a period of economic austerity. However, neither country made a convincing start to their ambitious goals, illustrating the political risk that undermines public funding on this scale. The Cancun conference failed to resolve these philosophical

Butler, Rhett (2009). "Are We on The Brink of Saving Rainforests?" .Retrieved November, 2009

^{**} ibid

⁴⁴ Butler, Rhett (2009). "Big REDD". Washington Monthly 41: 2.

differences. Climate negotiators were tasked with exploring options for REDD finance before the conference in Durban in November 2011⁴⁵.

The Concerns and Safeguards

One of the most notable features of the Cancun Agreements is an Appendix which lists safeguards for the operation of REDD. These embrace social issues far removed from customary global warming texts, including a significant US government concession in noting the 2007 UN Declaration of the Rights of Indigenous Peoples. They also raise the importance of integrating forest plans with the array of potentially overlapping commitments⁴⁶. These include development and poverty reduction strategies, food security plans and provisions of other international agreements such as the Convention on Biological Diversity.

Whilst countries will be required to prepare reports on how they are observing the safeguards, many negotiators remain concerned that there is no provision for monitoring and no sanctions for non-observance. Sensitive terminology such as sustainable management of forests does not enjoy common interpretation and will have to be defined. Beyond these minutiae lies the overarching unease that forces unleashed by generous REDD finance may overwhelm the best intentions of "safeguards". The scent of funds entices governments and power-brokers to maneuver themselves into positions of control, pushing back against the gains of community forestry. Ruling on ownership of intangible forest carbon credits will obfuscate security of tenure just when clarity is most needed.

⁴⁵ Von der Goltz, (2009), High Stakes in a Complex Game: A Snapshot of the Climate Change Negotiuting Positions of Major Developing Country Emitters, Center for Global Development

⁴⁰ Myers, Erin C. (2007). Policies to Reduce Emissions from Deforestation and Degradation (REDD) in Tropical Forests. *Resources Magazine*: 7. Retrieved November 2009

History suggests this picture may ferment corruption and cronyism, rather than the equitable distribution and protection of individual rights to land and livelihoods⁴⁷.

More recently, the UN Convention on Biological Diversity set a goal of halving the rate of deforestation by 2020. But its good intent has not yet been echoed in the many other UN and multilateral institutions involved with forests. The global body specifically tasked with the "management, conservation and sustainable development" of forests is the UN Forum for Forests. It has succeeded only in securing a weak non-legally binding international agreement on forest sustainability⁴⁸. From the environmental perspective, the critical pressure to evolve deforestation as a policy system derives from the fundamental recognition that forests loss issues can no longer be thought of as secondary but as integral components of industrial, social and economic systems.

Forest loss affects livelihood of people, Homer Dixon identifies two categories of threats that arise, they include Social threats and Economic threats and they range from issues which include: prevailing levels of poverty, diseases, hunger, homeless and unemployment which leave people angry and eager to maximize the use of forest resources for their own gain. When the two categories exist exhaustion of forest resources has potential to explode to a community competition. Homer Dixon concludes that the above links embrace to threats livelihoods⁴⁹.

⁴⁷ ibid

⁴⁴ T. Irwin, 2009. 'Implications for Climate Change Policy of Research on Cooperation in Social Dilemma'' Policy Research Working Paper 5006, World Bank, Washington D.C.

¹⁹ T. F. Homer-Dixon, on the Threshold: *Environmental Change as causes of Acute Conflict in: International Security*, vol. 16, No. 2 (fall 1991), pp. 96-116.

Through climate change will affect the whole of Kenya, effects will vary from region to region. Forest loss is expected to accelerate desertification and gradual decrease in forest cover. In most parts of Kenya rainfall is predicted to decrease, soil degradation, agricultural production will decline and more intense dry periods and short wet seasons which will cause water supply shortages⁵⁰.

Conclusion

Changes in climate are expected to reduce food supply and hence intensify forest crime and security in the region. Finally, the concept of deforestation is used in this study to refer to threats of environmental degradation. In traditional setting, deforestation refers to cutting off down of trees. Hence deforestation referred to here is the complete conversion of an area of forest to a different land use. In conclusion, the importance of understanding the concept of deforestation is that it permits unofficial actors of diplomacy to effectively address the root cause of conflict without reinforcing the already prevalent perception of forest loss and degradation as matters of purely national concern, there is also need for highlighting common concerns that help to counterbalance the preoccupation with competing state interests.

The following chapter will seek to analyze the case study and present the deforestation situation in Mau and diplomacy, to achieve this, it will utilize unpublished primary data from interviews and published primary documents.

⁵⁰ P. A. Wass, (ed) 1995. *Kenya's Indigenous Forest. Status, Management and Conservation*. IUCN, Gland, Switzerland, and Cambridge, UK

CHAPTER THREE

TOWARDS FINDING DIPLOMATIC SOLUTIONS TO DEFORESTATION IN KENYA; MAU FOREST, 1963- 2011.

Introduction

Chapter two examined the theme of deforestation and major developments. This chapter will examine deforestation in the Mau and will therefore analyze the theme of Mau forest, it will highlight issues of deforestation in Mau complex; show the causes, impacts, consequences and areas where they happen. This will focus on the findings on the study industry forest legal framework, contributions to the legal framework and the mass of the respondents. This Chapter will also examine the theme of diplomacy in Mau forest as it will describe, compare and contrast unofficial diplomacy from other types of diplomacy, then develop an inventory of unofficial actors in the Mau forest.

The aim of this chapter is to examine deforestation in the Mau forest and explore possible entry points for contributing to knowledge creation. To achieve this, the chapter will mainly use primary data to build conceptual basis, secondary data, secondary data will be used to develop the background of this chapter to support literature, compare and contrast findings. The main aim for doing this is to build a basis of knowledge for this study.

Background

Mau Forest is a forest complex in the Rift Valley of Kenya. It is the largest indigenous montane forest in East Africa. The Mau Forest complex has an area of 273,300 hectares (675,000 acres).

Deforestation Threats

The literature analyzed in chapter two showed that deforestation issues have expanded scope from a social or community issues to concentrate on economic and political issues, this expansion is credited to the fact that deforestation issues affect everyone from all walks of life both locally and internationally.¹ With this understanding, it can be said that, despite of the fact that Mau forest is endowed with extraordinary natural resources its inhabitants face considerable challenges emanating from the antagonistic state of relationships between individuals members of society in relation to one or several aspects of the environment, at local, regional or global level, forest security is important because of the existence of environmental threats.²

To put forest security theme into context, this section will highlight deforestation threats that challenge forest security in Mau forest. The topic of deforestation is wide to be exhaustively discussed in this chapter the attempt to examine it shall be done within the conferment of scholarly principals and perspectives of deforestation scholars. In this case, Ehrhardt-Martinez, Karen considers the human dimensions of environmental change using national-level measures to assess the impact of population growth, political organization and inequality on measures of deforestation. Ecological modernization theory, dependency theory, social movement theory and ecofeminism are used to frame the analysis and discussion.³

¹ N. P Sharma (ed) 1992. Managing the World's Forest: Looking for Balance Between Conservation and Development. Kendal/Hunt Publishing Co., IOWA

² S. Masinde, L. Karanja, Climate Change Global Corruption; The Plunder of Kenya's food (Nairobi; 2011)

¹Ehrhardt-Martinez, Karen. Demographics, Democracy, Development, Disparity and Deforestation: A crossnational Assessment of the social Causes of Deforestation, Atlanta: 2003

Ehrhardt used the above description to capture the essence of deforestation threats, he said deforestation threats are those that are caused by human in interaction with a variety of often situation specific contextual facts. However, Ehrhardt- Martinez, Karen used a model, Ordinary Least Square (OLS) regression analysis, and results from (OLS) regression emphasized the importance of population age structures; Adult population size and growth are found to be more significant than child population in determining deforestation since deforestation threats can be included by demand scarcity or structural conflicts resulting from increases in population.⁴

On the other hand, an Environment Kuznets Curve (EKC) model of analysis was used to analyze deforestation threats. The (EKC) was found suggesting that, the rate of deforestation increase with the level of development and urbanization. This analysis goes ahead and suggests that demographic shifts, economic development and technological change in less developing countries such as Kenya will result in continued growth in the rate of deforestation for some time to come. Although the rates of environment degradation are eventually expected to decline, rates will continue to be positive in the medium term, resulting in continued loss of forests. For analytical purposes emphasis for this study will duel on forest threats that emerge from forest degradation.

Deforestation threats characterized by degradation in the Mau forest, include, forest and biodiversity loss, overstrain of the forest's capacity due to population growth in rural and urban centers, land degradation, soil erosion, loss of wetlands and water scarcity.

Forest and Biodiversity Loss

UNEP identifies deforestation as one of the main challenges facing most developing states.⁵ Deforestation in Mau forest is caused by different needs chief among them being demand for wood for household use and commercial use.⁶ Deforestation is also caused by demand for land for agriculture as well as settlement. The threat of deforestation is rampant in Kenya and a large population of Mau forest lost and these has been replaced by agriculture plantations. The effect of this is that soil erosion has increased in most parts of this region. By extension, in Mau forest, illegal logging of trees has created a platform for conflicts to prevail, these conflicts are in Homer-Dixon terms structurally induced. Olang Luka notes that, sales from illegal logging are not shared equally among communities where these trees grow, hence this leads to a structural conflict.⁷ Finally due to deforestation, surface runoff has increased, as a result, abnormal floods and unexpected drought have increased in most parts of Kenya, affecting the agricultural and human settlements.

Population growth

Population growth exerts pressure on resources bases.⁸ According to Homer-Dixon, when population increases and resources are constant, it creates a demand induced scarcity, whereby people are forced to depend on the few resources that are available.⁹ Significant increase in population puts pressure on natural resources like forests, water, food and

⁵ www.unep.org/environment/deforestation, accessed on 15 August 2012

⁶ Personal Interview with Unidentified Person at the Interim Coordinating Secretariat, 18 July 2012

⁷Olang, Luka, *Deforestation and Land degradation of the Mau Complex in Eastern Africa*: A review for Conservation and Restoration purposes. Environmental Monitoring (InTech Publishers, Croatia: 2012)

⁸ P.N. Gleditsch, Environmental Change, Security and Conflict. Turbulent Peace: *The Challenge of Managing International Conflict*. (Eds) C. A States Institute for Peace, 2001, pp 233

grazing pastures. Demand for resources has forced population to move to forest areas in such for land, food, water and pasture for their animals.¹⁰ When this migration is replicated over the whole Mau region, it renders and exposes the forest to destruction and degraded.

Increase in population puts pressure on forest resources especially water resource for domestic and industrial consumption. According to Olang, Luka, Kenya has high population growth rates which puts pressure on water, food crops that also relies on Mau for water supply. Olang, Luka, goes ahead and states, most African countries have a high population that puts pressure on the forest resources. The impact of consequences stems from the fact that majority of the people live in rural areas and both Kenya and other African countries are less developed.¹¹ The lack of modern technology, capital and support from international organizations and donor countries to mitigate these threats has led to a worse situation. However, lack of cooperation between various stakeholders has seen Kenya continue suffering from the same threats.

Land degradation

Land degradation refers to permanent or temporary decline in the productive capacity of land.¹² The decline is land production has a direct effect on food production and this means production is reduced making all those who depend on land to demand extra land for production targets that they have accustomed to. It therefore follows that, when

¹⁰ T. F. Homer-Dixon, on the Threshold: Environmental Change as causes of Acute Conflict in: International Security, vol. 16, No. 2 (fall 1991), pp. 76-116.

¹¹ Olang, Luka, *Deforestation and Land degradation of the Mau Complex in Eastern Africa*: A review for Conservation and Restoration purposes. Environmental Monitoring (InTech Publishers, Croatia: 2012)

¹² K. Conca and G.D Dabelko, *Environmental Peacemaking*: Baltimore, MD: Johns Hopkins University Press, 2002, pp 3.

people demand more land for farming, grazing and other activities and the land capacity cannot meet the demand, this can lead to fight over what is available and this generates into a conflict.

During the research it emerged that the main agents of land degradation in the Mau forest are the illegal settlers, illegal loggers and powerful politicians who own large tracks of land is Mau complex, which are further aggravated by overgrazing and improper agricultural activities among communities living around the Mau forests. According to a report by Food Agricultural Organization (FAO), the most important effects of land degradation are decline in grazing fields and food production.¹³ Decline in grazing fields among various communities is an issue of major concern, Mwaura identifies the causes of land degradation as poor land use planning, population growth and poor agricultural policies in rural areas. Additionally, land degradation is caused by people who increasingly are forced to cut down forests for energy and use as building materials.¹⁴

According to a report by Institute for Security Studies (ISS), land degradation in North Eastern Kenya is rampant and the diminishing level of grazing land has forced nomadic communities living here to migrate to areas that have pastures, causing forest invasion and increased cases of transborder conflicts. On the other hand, water erosion deposits soil in river banks which further reduce the capacity of rivers, the effect of this is that water levels are reduced gradually and on extreme cases, rivers can loose their courses.

 ¹³ Annual Report, Food Security in the Horn of Africa, African Security Perspective, Vol:112, No:2, 2009, pp 1-148:7
¹⁴ P. Mwaura, Daily Nation Newspaper, 21 March, 2010.

The link between land degradation and deforestation can be summarized using the EKC model mentioned above. In EKC terms, land degradation in this perspective is a supply included threat. Supply induced scarcities results from the depletion of resources. The people who are most affected are those living around and communities that practices small scale farming, the extent of land degradation is that, effects resulting from them threaten both the forest and people depending on the forest.

Soil erosion

Soil erosion is a threat to forest security because it causes serious damage to soil by reducing productivity of the soil and fertility. Soil erosion can modify farm fields cultivation making is unfit for cultivation. Soil erosion is accelerated by human intervention through deforestation, overgrazing and poor farming practices heading to loss of soil fertility and reduction in crop yields. In addition to the above mentioned problems, it can lead to side effects like down stream sediment deposition in fields, floods plains and water bodies, water pollution and reservoirs siltation.¹⁵

The main causes of soil erosion include; cutting forest, overgrazing, burning of vegetation cover and agricultural land use. Fire raises the temperatures of the soil, consumes organic matter and breaks down soil aggregates increasing bulk density of soil and decreasing its permeability. As a result reduces infiltration of water into the soil, increases run off and promotes soil slippage on steep slopes. Over grazing on the other hand affects the soil and renders it hard to grow crops and plants if there is growth, the roots or shoots retards and exposes land surface to erosion.

¹⁵A. H. Jacobs, Pastoral Maasai and Tropical Rural Development In R.H. Bates and M.F. Lofchie (eds) Agricultural Development in Africa Issues of Public Policy Praeger, New York; 1980

Water scarcity

Water scarcity is a major challenge to forest survival in the Mau forest. It is further exacerbated by incidence of climate variability and natural shocks such as droughts and floods.¹⁶ Drammer said and water has become scarce, competition to access and use has often resulted in conflicts.¹⁷ Hence, conflicts are more likely to occur as struggle to utilize scarce water resources increase. Balinda, adds that declining water quality has increased competition for fresh water among communities that traditionally had plenty.

The quantity had quality of water in the water sources has been deteriorating. The major threat to water quality and quantity is forest cover loss, wetland loss and pollution from both urban and industrial waste. The effect of water scarcity can be assessed by considering its impact on economic and social activities.¹⁸ A case in point to illustrate this issue was in the year 2000 when the government started rationing of water because the quantity of the water sources had dropped significantly and these same resources was being shared by neighbor countries such as Tanzania and Uganda.

Diseases are becoming prevalent throughout the Mau settler. The costs of these threats are invariably borne by downstream users, particularly the poor who live in marginal or less desirable areas where their susceptibility to sickness is greater.¹⁹ In addition, Ochieng, R. identifies deforestation, overgrazing and poor management of cultural land as some of the main agents to forest loss in the Mau forest. These factors lead to depletion of general forest cover as well as water and soil erosion. Soil erosion for

¹⁰ United Nations Convention to Combat Desertification (UNCCD). <u>Water</u> Scarcity and Desertification; 2009

¹⁷ Personal Interview with Halifa Drammeh, Environmental Governance, United Nations Environmental Programme, Nairobi, on 2^{ad} September 2012

Personal Interview with Alfred Balinda, UNEP Nairobi, on 4th Sept 2012

United Nations Development Programme, Human Development Report, 2006

instance harms productivity by depositing silt in rivers, irrigation systems and deficits in food production, declining food security and human poverty.²⁰

In addition, insufficient water sources and inadequate rainfall intensify movement of people, the most affected people in this category are communities who depend on forest resource and people who lack access to land and drinking water for human beings and animals, hence are forced to invade the forests. On the other hand Wass notes that, lack of forest has impaired the functions of natural ecosystems, threatening fisheries and interfering with tourism industry.²¹

The UNDP report said further that, two among the states depending on the Mau are among poorest in the world, coupled with the fact that most are pre occupied with internal conflicts, deforestation threats are not regarded major national threats. When states are occupied with internal conflicts, they pursue policies that will safeguard their physical national interest from internal and external means; it is therefore a challenge for the East African states to provide individuals with basic provisions and protection from deforestation threats.²²

Loss of wetlands

Nuttal says that perhaps the most unseen lethal threat to Mau forest is the drainage of wetlands.²³ This is echoed by Noor, H. in reference to a research conducted on wetlands

²⁰ R. Ochieng, (2009), A review of degradation status of the Mau Forest and Possible Remedial Measures (Wageninger University) pp. 15-24. ²¹ P. A. Wass, (ed) 1995. Kenya's Indigenous Forest. Status, Management and Conservation. IUCN, Gland,

Switzerland, and Cambridge, UK

²² United Nations Environment Programme, Annual Report of 2009, pp 146

²³ Email response by Nick Nuttal, on Mau Forest Security Perspectives, on 25, August 2012

of Mara forest. It emerged that, wetlands of the Mau are drained for agriculture, human settlement, industrial and commercial purposes. In some cases draining of wetlands has increased to such an extent that their functions are impaired hence their capacity and exceeded and reduced.²⁴

In contrast, it is arguably a fact that the treaty ratified by Kenya, The Ramsar Convention on wetlands that promotes wise use of wetland and to take measure for the conservation by establishing nature reserves in wetlands. This claim is based on Environmental Kuznets Curve (EKC) model on the perspective that the rate of deforestation increases with the level of development, demographic shifts and urbanization. This is a demand induced capacity hence can cause a conflict. In the Mau case, this implies that when a resource is common to all communities and neighbouring nations but legal regulations are deficient to deal with adverse effects of forest resource exploitation and always find themselves in regulatory competition.²⁵ For this reason the following sections will analyze the Forest Institutions and legal framework after 1999.

Forest Institutions and legal framework after 1999.

Currently, Kenya's forest policy and legislation are scattered in a multiplicity of resources and departments that deal with forest conservations and management which are equally numerous.²⁶ Section specific laws are deficient in that they are characterized by fragmented and uncoordinated sectoral legal regimes that are developed to facilitate

²⁴ Personal Interview with Hassan Noor, Chief Coordinator, Interim Coordinating Secretariat on Mau Forest Restoration

²⁵ M. Thaxton, Integrating Population Earth and Environmental in Kenya. Population Reference Bureau, Bride, Making the Link, 2007 p 3-4.

²⁶ T. Yatich, Awiti A. Policy and Institutional context for NRM in Kenya: Challenge and Opportunities for Landcare. ICRAF Working Paper No. 43 2007 Nairobi. World Agroforestry Centre.

resource allocation and to deal with adverse effects of forests resources exploitation. The sectoral institutions under these laws often find themselves in regulating competition they range form government departments, nongovernmental organizations, private sectors, associations community based organization among many others. With the range of institutions there is bound to be operational conflict and duplication of roles and responsibilities.²⁷

A legal framework is the foundation for an effective policy. Legal framework is a purposeful statement by a government expressing its recognition of a problem and stating its commitment to address a problem through specific actions. One of the key role functions of policy is to advice and direct government on necessary actions to address the identified problems. However, given that policy is not binding, there would be no legal consequence on a government or people for failing to implement their policy.²⁸ This is why there is need for a legal framework in Kenya because law provides legitimacy for actions, that is, programmes and activities to address the problem whose resolution may otherwise be unaccepted, set goals that a society desires to accomplish like forest conservation and management, is the only acceptable tool in regulating human behaviour and conduct and it is laws that have official sanctions and can ensure compliance. Thus, every policy should be translated into law for effective implementation.

Due to this reason, various forest conservations and management acts have been established to have an effective implementation of the forest decisions made by the

²⁷ [bid

²⁸ National Climate Change Response Strategy. Government of Kenya April 2010.

various forest and environment decision makers. These acts include among others, The Forest Act 2005 (Cap 385)

Forest Act No. 7 of 2005 and Deforestation

The foundation of resources induced threats among Mau forest depend communities was the forest Act No. 7 of 2005. This is the principle legislation for the conservation management and utilization of forest and forest products. It is overseen by the Board of the Kenya Forest Service. The former Forest Department was supported almost entirely from forest revenues, and was, as a result, chronically underfunded.²⁹ Under the 2005 Forest Act this has changed somewhat, with for example, the creation of special funds such as the Water Towers Conservation Fund, a portion of which goes to forest rehabilitation, and the Mau Rehabilitation Trust Fund, for the Mau Forest.³⁰ As of 2003, Kenya had 1.57 million hectares of gazetted forest. Among the responsibilities of the Kenya Forest Service are to: own, manage and protect all state forests; promote forestry education and training and operate the Kenya Forestry College; enforce the conditions and regulations pertaining to logging, charcoal making and other forest utilisation activities; apprehend and prosecute violators of forest law and regulations; collect revenues from exploitation of forest products.³¹

As for the Mau Complex, there is no co-operation and agreement among the stakeholders involved and has become an obstacle for development and has not made any significant contribution to the sustaining of environment diplomacy. As a result, there is no much

²⁹ Nelson, Peter et al. (2007). Strategic Environmental Assessment of the Kenya Forest Act 2005. The World Bank.

³⁰ Mbugua, David K. (2003). The forest revenue system and government expenditure on forestry in Kenya. Rome: Food and Agriculture Organization of the United Nations (FAO)

³¹ M. Njagih, Special fund to restore water towers created. Standard Digital; 20 August 2010

progress done regarding Mau forest restoration and resettlement plans for the Mau evictees. To date, there is no comprehensive agreement on the use of Mau forest that binds all parties and no measure of integrated planning to develop a comprehensive agreement on Mau restoration, management and conservation. The fewer agreements have been concluded between two or three stakeholders with no or little binding.³²

From the above, it's obvious that when national interest or political interests are protected by the state, it makes it hard for other people to share a common resource to make any meaningful benefit. Shared resources should ideally be used for joint gains as in the case of Mau forest. The impact of the Forest Act on the forest security is not direct, but indirectly affects other dimensions of human and economic survival. Economic survival is affected since tourism revenue is lost. Human who should benefit from the forest from irrigation and water supply are denied access.³³

The constitution of Kenya does not have direct forest protection provisions. The major law dealing with forest management in Kenya is Forest Act 2005. The Act vests their right over all forest and wildlife in the state. The overall power for the control of every forest is exercised by the ministry of forestry and wildlife and NEMA is responsible for conserving. The forest Act further recognizes the role of community groups, organized as forest resources conservation associations, in the management of forest resources. It promotes an integrated approach to forest resources management. The National Environment Management policy provides for sustainable management and development of forest resources in a coordinated and integrated manner. The constitution (2010)

³² Mbugua, David K. Op, cit.

¹⁰ http//www.conserveafrica.org.uk/advocacy.php

provides for environmental protection and conservation. It imposes a duty on the government to protect important natural resources including forests on behalf of the people of Kenya.³⁴

Background of diplomacy and Mau forest

Montville is his attempt to distinguish traditional diplomatic activities conducted by states from unofficial diplomacy that is conducted by non state actors, he used the term to denote unofficial conflict resolution dialogues. Montville was keen to persuade his diplomatic colleagues that such dialogues should be better understood by diplomatic professionals. When Montville used the term diplomacy, he merely noted that if official diplomacy might be called track one then unofficial attempts to resolve differences might be called track two. He defined diplomacy as unofficial, informal interaction between members of adversarial groups or nations with the goal of developing strategies, influencing public opinion and organizing human and material resource in ways that may help resolve the conflict.

For the purposes of this paper, the term diplomacy shall be defined as; unofficial dialogues often facilitated by an impartial third party actors and involving individuals with some connection to their respective official communities, focused on co-operative efforts to explore new ways to resolve differences over or discuss new approaches to policy and polity relevant issues.³⁵

 ³⁴ Nelson, Peter *et al.* (2007). <u>Strategic Environmental Assessment of the Kenva Forest Act 2005</u>. The World Bank
³⁵ H. Kelman, "The Interactive Problem-Solving Approach, "in Constructive Conflict: From Escalation to Resolution, eds, C.A Crocker and F.O Kreisberg, New York: Rowman and Little field, 1996, p. 82.

The significance of diplomacy is that, it can reduce the propensity for protracted conflict by improving communication and encouraging a common ground among the disputing sides.³⁶ The value of pursuing unofficial contacts between people on opposing sides is that they have the capacity of de-escalating a conflict before any official negotiations can used. The role of diplomacy is to engage in informal interaction between member of adversarial groups or nations with the goal of developing strategies, influencing public opinion and organizing human and material resources in ways that might help resolve any prevailing conflict. Acceptance of diplomacy is based on the change in the nature of conflicts.³⁷ Potential conflicts around and in Mau forest are increasingly the result of internal dispute in which government are the main agencies involved.³⁸ In this context, it makes little sense for official actors to continue dealing with governments alone, instead interaction with unofficial actors of diplomacy is required.

The need for power and protection of national interests has historically propounded states to engage in crude means to get their interests or protect them. Hence a state will employ all it capabilities to protect them. Organski argues that for a particular good to qualify to be a national interest, it must be supported by the central government, it must be supported by a sizeable population and its deprivation must warranty national security of a state if denied.³⁹

T Pricern, Environmental NGOs in World politics, London Routledge, 1994, p. 15

³⁷ K.Krause and C. Michael Broadening the agenda of security studies: Politics and methods. Mershon International studies Review, No. 40, 1996, pp.186-239:187-188.

¹⁸ J. Havermans, 1999, *Private Professionals for Peace in People building peace*: Inspiring Stories from Around the World, European Centre for Conflict Prevention, p. 22.

³⁹ H.J Morgenthau, Politics Among Nations, 5 Editions, New York Knopf, 1978, P. 249.

Monteville identifies functioning phases of diplomacy as; small problem solving workshops that bring together conflicting groups informally, influencing public opinions in as attempt at reducing the sense of victim hood of the parties and re-humanizing the image of the adversary. Problem solving workshops is a powerful tool because it can lead to resolution of conflicts. It is also regarded as a pre- mediation approach that prepares parties in a conflict for formal mediation. The implication of this is that, actors are rendered more flexibility and can respond to demands and request of parties informally. In comparison to official diplomacy, it is observed that actors are less flexible since they are focused on state interest and political demands of the government.

Unofficial Diplomacy in deforestation Issues.

The prominence of deforestation issues as an agent of conflict has necessitated scholars to examine the subject forest loss conflict. Birnie examines the role of international law to handle deforestation conflicts, has held hostage political willingness of states to address forest loss conflicts.⁴⁰ States are the only actors with legal character to engage in multilateral international negotiations. It was on this note that the first major global conference to discuss forest destruction matter in the Mau forest were handled through limited agreements such as Enforcement Unit; for the period May 2008 – December 2009: securing Forest Resources in the Mau Forest Complex.

Most of these agreements contained only two or three of the necessary parts for effective conservation and management; regulation and enforcement provisions and not scientific

⁴⁰ P. Birnie, 'The role of International Law in Solving Certain Environmental Conflicts in Carol, J.E (Ed) International Environmental Diplomacy: The Management and Resolution of Transformation Environmental problems Cambridge: Cambridge University press, 1990, pp 95, 98 – 101.

advice or institutional implementation.⁴¹ Bjorkbom on the other hand argues that although there is an impressive legal and institutional frame work for the regulation of forest loss and conflicts, it is not a sufficient tool for the conduct of diplomacy. He notes that deforestation problems have been addressed in multilateral diplomatic context, which has some inherent problem such as coordination.

Diplomacy involves a wide range of actors including intergovernmental organizations, United Nations, international institutions, secretariats, nongovernmental organizations as well as states. Unofficial actors in the Mau forest are grouped into two categories. The first category is that of those involved in committing forest crimes and whose acts inadvertently contribute to forest degradation. The second category are actors whose actions are used to conserve, promote and lobby for sustainable development of the Mau forest by extension , their efforts compliment state initiative geared towards sustaining forest conservation.⁴²

The strength of unofficial actors in Mau forest lie in establishing grass root participation and holding multi stakeholders dialogues. Unofficial actors represent an opportunity to develop forests and its biodiversity within the Mau forest to optimize the benefits of all communities. The role of pro-track two actors in the Mau forest can be traced back to the establishment of the USAID in Action. The USAID in Action is a strategic and operational approach by civil society to influence the development of projects and processes among various communities in Mau. It seeks to maximize social, economic, and environmental benefits available to poor people reducing poverty. The main

⁴¹ R.P. Barston, Environmental Diplomacy, op, cit, p. 150.

⁴² Ibid

objective of USAID in Action is to promote sustainable and equitable development, poverty reduction and co-operation between all stakeholders in Mau.⁴³

Under the overarching objective, the USAID in Action aims to promote the open sharing and exchange of information on current man forest development that are related to forest loss. They also coordinate civil society engagement in development processes under the Reducing Emissions from Deforestation and Forest Degradation (REDD+) initiative. In addition the USAID in Action through the Greenbelt Movement assist in capacity building of unofficial actors to craft ideas for development that will centre on conserving of forest resources and issues related to forest management while reducing poverty in Mau. It also assists to develop the means to monitor and evaluate the impact of USAID in Action projects and processes on local communities through the Mau forest.

However, the overall aims of the USAID in Action are Financing the survey and marking of boundaries of the Transmara and South Western Mau Forest blocks and the preparation of title deeds to these forests for the Kenya Forest Service, Funding an interdisciplinary team of experts to carry out an assessment of land tenure and administration, land and natural resource management and to develop a stand alone, autonomous, civil society organizations that will take the task of facilitating the discourse forward. Its achievement includes the fact; the USAID has supported the National Land Policy Formulation Process since 2004.⁴⁴ In March/April 2008, USAID undertook reviews of the draft policy and assessed the influence of LTPR on biodiversity conservation, natural resource-based enterprise and agricultural productivity and minority

^{**} www.usaid; USAID/Kenya; East Africa's Treasure, Published May, 2011

⁴⁴ www.usaid; USAID/Kenya; Environment, Accessed July, 2012

rights of women and youth helped in setting up of a mechanism of governance, it assisted in establishment of an office to carry out the programs of the discourse. The discourse role is to promote the understanding that Mau and its resources are a shared resource irrespective of their nationality and shared with the global community. The Kenya Forest Service has a key role to play in wetland conservation within the Mau forest and efforts at achieving poverty reduction and unemployment.

The Kenya Forest Service is complimented by International Union for Conservation of Nature (IUCN) under its Regional programme for Eastern Africa. IUCN was appointed to administer the funds and hosting the process on behalf of the discourse to ensure that it achieves its efforts for forest security. The main role of IUCN is that it facilitates forest security programmes with funding. IUCN operates a regional programme for Eastern Africa which oversees conservation of the environment.⁴⁵ IUCN helps raise awareness thorough workshops at national level aimed at facilitating national meeting to disseminate information, raise awareness and encourage exchange of data and views about planned development in the Mau forest and impact on people and poverty alleviation. It is also engaged in development of information packages and awareness methods as part of national resource centre a civil society, dissemination of information to local levels and facilitation of exchange of ideas and information about Mau forest including the plans and progress. IUCN Permits co-operation among communities in protecting and managing the forest and its ecosystem. The project provides training to

⁴⁵ International Union for Conservation of Nature and Natural Resources (IUCN), *World Conservation Strategy: living resource conservation for sustainable development*, 1980. data.iucn.org/dbtw-wpd/edocs/WCS-004.pdf Accessed February, 2011

develop skills in government ministries, NGO, and local communities in such areas as forest Conservation and management, monitory and conserving wet lands.⁴⁶

The project also seeks to share broadly information about issues affecting the environmental among all stakeholders in the Mau forest including developing a decision support system but is based on reliable and consistent forest data from each stakeholders in the Mau project to enable better region wide forest planning and management. The project includes a grant program through which local NGO and communities receive small grants to promote community based approaches to land and forest conservation to reduce soil erosion, desertification, pollution ad to control forest invasion.

The other track two actors involved in facilitating funds to forest conservation is the European Union and provides technical support in areas that include population growth analysis, media training and civil society capacity building is social impact assessment, monitoring and evaluation.⁴⁷ In addition the European Union has been involved in the process of negotiation of Mau agreement between government and Mau settlers, this seeks to conceptualize the debates on international relations and forest security in Africa. One of its goals is to enhance Kenya's capacity to engage in forest security debates. which incorporates forest conservation and management.⁴⁸ Through this organization, the Kenyan government seeks to capacitate its members so that they are in a position to engage constructively in international and regional forest conservation and management processes. The European Union aims to conceptualize information and enhance forest

⁴⁶ Christoffersen, L. E (IUCN): A Bridge-Builder for Nature Conservation. Green Globe Yearbook ,(1994) Accessed 11 June 2008

⁴⁷ Kiplagat Kirui, The Star Newspaper, Friday 16, March 2012.

⁴⁸ Kamweti, D. Osoro and Mwiturubani D, Nature and Extent of Environmental Crime in Kenya, Institute for Security Studies (ISS), 2011

security in Kenya and African in general with aim of supporting policy formulation and decision making of every level.⁴⁹ Unlike other track two actors discussed above, International Centre for Research in Agroforestry (ICRAF) is also involved in the Mau forest as a regional research institute operating across East African states, its operations are guided by a broad approach to deforestation that reflect the changing nature and origin of threats to forest development in general. In particular it aims to develop mechanism to fight against forest threats and sustain biodiversity in Mau forest. ⁵⁰

UNEP runs a three-year intervention to rehabilitate the Northern Mau Forest in Kenya. The EU-funded project is expected to restore of water catchments, establish payments for environmental services, improve the livelihoods of local communities, and monitor carbon storage in the Mau Forest.⁵¹ By involving the local communities in its design, the programmes embrace the dual needs of conservation and development so that livelihoods of the people could be maintained into the future. The programmes are varied from biodiversity to land degradation and pollution. UNEP is involved in joint fact finding and compiling information so that all states involved can review it and update it using technology.

On the other hand the media plays an important role of public diplomacy through the different mediums an example is through the use of internet, print and electronic media. Often media is used to lobby through articles in the newspapers, documentary features on television and blog sites on the internet. All this mediums engage participation of publics

⁴⁹ Anderson, K and R. Blackhurst, eds, 1992, *The Greening of World Trade Issues*. Ann Arbor: University of Michigan Press and London

³⁰ Krhoda, G. O., The Impact of Resource Utilization on Hydrology of the Mau Hills Forest in Kenya, Mountain Research and Development, Vol. 8, Nos. 2/3, 1988, Nairobi. pp. 193-200

⁵¹ United Nations Environmental Programme, 1991, Status of Desertification and Implementation of the United Nations Plan Action to combat Desertification. Nairobi: UNEP

from all walks of life on issues of forest conservation and management. As a result, people in the different states are more aware of the issues that are going on.

Conclusion

Lastly it can be argued that the approach to deforestation issues among government and stakeholders is simplistic, this is perhaps not surprising since the state is the dominant actor. Deforestation issues would have been different if the issues of forest conservation and management in Mau forest are managed not only by state actors but also by non state and individual actors as well. This suggestion of how non state actors can contribute to forest conservation and management will be developed and examined in details in the next chapter. In conclusion, this section has attempted to capture the issues that unofficial actors address among the Mau communities and various stakeholders, the following chapter will seek to analyze data obtained.

CHAPTER FOUR

TOWARD FINDING DIPLOMATIC SOLUTIONS TO DEFORESTATION IN KENYA; THE CASE OF MAU FOREST: CRITICAL ANALYSIS

Introduction

Having discussed diplomacy in the Mau forest restoration and management and the theme Mau Complex in chapter three, this chapter goes ahead to present the findings gathered from the case study, Mau forest. It includes the forest legal framework, contributions of various ministries and NGO's in decision making and implementation to those legal frameworks and the views of the respondents.

The central topics highlighted a number of issues concerning unofficial diplomacy and deforestation in the Mau complex. This chapter will therefore put all these issues together in assessment of unofficial diplomacy in deforestation of the Mau forest. In addition, this chapter will utilize the objectives raised in chapter one to examine how they will enable the study to navigate to its hypothesis.¹ Chapter four will therefore sum up all discussions raised and critically address main issues of the other chapters.

Emerging Issues

This chapter will go ahead and analyze issues under the concept of unofficial diplomacy and later examine issues concerning deforestation

i) The role of Unofficial Diplomacy

Unofficial diplomacy is the interaction between members of adversarial groups or nations to develop strategies influence public opinion and organize human and material resources

¹ See, Chapter one

in ways that might help resolve their conflict.² Mwagiru's view is, unofficial diplomacy takes place outside such properly appointed venues and without regard to established practices and rules of procedure.³ Mwagiru's definition of unofficial diplomacy is arguably a modern day rendition of Gilboa's public diplomacy. According to Gilboa public diplomacy is a situation where state and non state actors use media and other channels of communication of influence public opinion.⁴ In addition, Berridge says, the mainstay of public diplomacy is the promotion of a country's national interests by providing current understanding of its goals, policies and activities to the domestic and foreign audience.⁵

The policies and goals are usually achieved by dialogue with institutions, groups and citizens locally and internally. Public diplomacy seeks to reduce the degree to which misunderstandings complicate relations among various actors and activities of public diplomacy are to influence government and its citizens through information and education program.⁶ State's relations are provided through affective communications, diplomacy is used as the tool of communication and thus enhances cooperation and forest conservation and management. With this understanding Gilboa plays an important role in cementing relationship between societies and groups conflicting over a particular interest or resource. In Mau forest, dialogue has been provided though workshops and various

² J.V Montville, The Arrow and the Olive Branch; A case for Track Two Diplomacy in McDonald J.W and Bendahman. DB, (eds) Conflict Resolution : Track Two Diplomacy, Washington: Foreign Service Institute, 1987, pp 5-

²⁰ D. Kappeler, M. Mwagiru, J. Odera, *Diplomacy: The Concept Actors, organs Rules and process*, Institute of Diplomacy and International Studies, University of Nairobi, 1991, pp 8-10

Diplomacy and International Studies, University of Parlot, 1991, pp 0 13 ⁴ E. Gilboa, Media Diplomacy; Conceptual divergence and applications, The Havard International Journal of Press/ Politics Vol: 3, 1998, pp 3-67:4-8

⁵ G.R Berridge, Talking to the Enemy; How States Without Diplomatic Relations Communicate, op, cit R.P Barston, Modern Diplomacy, op, cit

⁹ R.P Barston, Modern Diplomacy, op, cit

seminars. This therefore means, from the study research, it emerged that unofficial actors enhanced dialogue through workshops.⁷ These workshops bring groups in conflict to dialogue and transform the relationship and this makes it possible clear misunderstanding and create new relationships among parties.

Relations among the government and communities living in and around Mau forest have been a challenge. This challenges are as a result from Mau forest invasion, acquisition of forest land, illegal logging, forest fires and ownership of large tracks of lands by powerful member of the state, land degradation, water constrain and these issues create a scenario where official actors are overwhelmed or lack experience in their regulation. Unofficial actors come in and play an important role of initiating, facilitating communication and enabling parties participate in negotiation and mediation that is aimed at reducing chances of conflict and promote co-operation in use of resources.⁸

It emerged during the survey that lack of information is a major barrier for the management and conservation of the Mau forest. According to Olang, Luka, resources that transcend boundaries cannot be pursued as solitary project by individual groups.⁹ But inadequate awareness and information to engage various groups in joint conservation and restoration of the Mau has seen Olang, Luka's suggestion not realized at the state level. It is at this point that the World Bank, European Union and Media have intercepted to facilitate seminars/ workshops and promote public diplomacy to people. Other non state actors include; Greenbelt Movement and World Resources Institute that produces

⁷ [bid

⁸ R.P Barston, Modern Diplomacy, op, cit

⁹ Olang. Luka. 2012, op. cit, pp 134

research policy papers that are used as guidelines to formulate policies and nurture relationships on co-operation between the government and citizens.

Collective co-operation and development in the Mau forest was constrained by disagreement and ownership of the land and forest at large. Some powerful politicians own acres and acres of land and they are not touched by anyone. But the small farmer who owns a small piece is vacated without a proper compensation and resettlement plan.¹⁰ In addition, some member claimed a share in the management of the resources since they contribute to the forest conservation. The challenge at the point is to develop a mechanism to accommodate all this needs, hence some co-operation initiates were adopted, these initiatives were mostly bilateral.

Some of the cooperative initiatives were in light of the complexity of issues and large range of stakeholders involved in the Mau, the government had to establish a Task Force to assess, build consensus and make recommendations on the rehabilitation of the Mau. In addition, the Interim Coordinating Secretariat coordinated the implementation of the Mau Task Force recommendations as approved by the cabinet and parliament. This coordination is to ensure an orderly, systematic and timely implementation involving the relevant government's ministries and the various Task Forces. This initiatives had unofficial diplomacy tendencies although they were official actors projects. They paved

¹⁰ The Interim Coodination Secretariate, Restoration of the Mau Forest Ecosystem, Office of the Prime Minister, November, 2011

way for unofficial actors to engage in Mau activities. Prior to the beginning of the project, non-state actors were limited to facilitating financial support.¹¹

The financial support was necessitated due to the fact that government had not taken environment conservation, in particular sustainable forest management among the top priority areas of the agenda of the government, and thus little was allocated to forest resources. Hence non state actors like World Bank and EU engaged in the project by facilitating workshops to discuss issues of cooperation¹². In Montville's terms, these initiatives were fulfilling the claim that, non state actors are most effective in organizing forums for problem solving. In addition, non state actors today play active roles, for instance, The Institute for Security Studies carries out research on environmental issues, and out of this they advice governments and policy makers on deforestation threats.

Although unofficial actors lack sovereign powers, they have been able to promote continuous dialogue among various stakeholders in Mau. Unofficial actors of diplomacy encourage people who depend on forest resource to use it in a sustainable way. In addition, they emphasize on the protection and preservation of resources rather than fighting and depleting it.

Media has enhanced public diplomacy in Mau issue. For instance the Interim Coordinating Secretariat has set up a committee on communication and outreach comprising media and public relations experts. Two media houses breakfast briefing were

¹¹ Ibid

¹² http://www.maurestoration.go.ke/index.php/achievements

organized with one media house editors in Nairobi and two media house journalists based in Nakuru. These briefings were not only an opportunity to share information but also establish a long-term relationship between the secretariat and the media houses.¹³ The increasing role of media during this time played a positive role in promoting awareness among different actors in Mau issue. On 18th June 2010, when the Mau issue was aired, national newspaper, Capital News, carried stories and debates that ran for approximately a week, the debates engaged communities and various stakeholders involved in Mau.

The media promoted dialogue and acted as an agent of public diplomacy.¹⁴ Its role in bridging the gap between the stakeholders and government to initiate negotiation succeeded. During this time, individuals representing different organizations could contribute in the media on the topical issues. From the discussion in the media, it was evident that a solution needed to be reached as quickly as possible.¹⁵ The media here played a role in informing the government about attitudes and attention that was needed and as such created a platform for conduct of public diplomacy.

The role of media in public diplomacy can best be analyzed by considering Gilboa's descriptions where he says, media operates in three shades, basic variant, non-state transnational variant and the domestic public relations variant.¹⁶ Basic variant argues that media can be used to win critical battle for the minds of people in countries with hostile

¹³ The Interim Coordinating Secretariat, Restoration of the Mau Forest Ecosystem, Office of the Prime Minister, November, 2009

¹⁴ E. Gilboa, Diplomacy in the Media Age: Three Models of Uses and Effects, Diplomacy and Statecraft, Vol: 12, 2001, pp 221

¹⁵ www.eastafricanblog.net/ accessed on 21 July 2010

¹⁶ E. Gilboa, 1998, Media Diplomacy; Conceptual divergence and applications, op, cit

governments, by creating a favorable image for a countries policies, actions, political and economic goals. For instance, in Kenya, the former president Moi used the Voice of Kenya and Kenya Broadcasting co-operation respectively.

Non state variant argues that, non state actors can utilize their power to promote relations.¹⁷ For instance, the Greenbelt Movement in Kenya with the leader the later Prof. Wangare Maathai, pitched campaigns through the media to overcome cutting of trees and planting more trees. This was successful because, the media helped them create a link with other groups particularly the NGO's and donors, this groups acting in their capacity as domestic constituents were able to influence the government to recognize the importance of tree planting in various forests, especially Mau and Karura forests and as a result of media intervention, government involvement through various ministries, especially forestry helped to overcome the vice of tree cutting.

The domestic public relations variant argues that a government should hire a public relations agent in order to achieve its goals.¹⁸ This is so because the government cannot conceal the real force behind it. A local agency can achieve its goals effectively and efficiently. This is important in situations where states are in war for instance, Kenya and Somalia on insecurity issue, Somalia had a reputation of having invaded Kenyan territory and al shabaab menace but Kenya to get a local firm to carry out the role of public diplomacy.

¹⁷ ibid

¹⁸ Ibid

Complexity and increased awareness of forest resources has led to increased regional cooperation hence more societies and states are embracing the roles of unofficial actors. Their participation enhances the ability of both political and technocratic terms. Keohane observes that, nongovernmental organizations play an increasingly important role in participating in many activities like negotiation, monitoring and implementation. Keohane goes ahead to say that non government institutions are distinctive entities with important skills and resources to deploy in the process of international co-operation.¹⁹ For instance the inclusion of Research institutions like World Resources Institute provides a policy advice to governments. In conclusion, unofficial actors are a part of co-operation process in the Mau forest and often reach publics and states that would not have reached. In addition, they provide services which include the following.

ii) Monitoring State Commitments

The doctrine of sovereignty states that, no intrusion into domestic affairs of a state.²⁰ Ohmae argues that active participation by non state actors enhances a state to regulate globally rather than undermine its sovereignty. And this he says is achieved through participation of unofficial actors.²¹ As a result, it emerged during this survey that, since states are not open to share information, the non-governmental organizations act as non official diplomatic agencies that gather information for funding states.

¹⁹ R. Keohane, P. Haas and M. Levy, Institutions of the Earth, Cambridge, MA: MIT Press, 1993, pp 12-14

²⁰ H. J Morgenthau op, cit

²¹ K. Ohmae, The Borderless World, New York, Harper Business, 1990, pp. 5

J.K Holsti, The State, War and the State of War. Cambridge; Cambridge University Press, 1996, pp 63

The information above is a clear indication that information gathering on forest resource issues help develop strategies that are of use to both the government and other stakeholders. According to the Greenbelt Movement as one of the non state actors, information gathering on forest issues have helped Mau Task Force to adapt to an increased public awareness of the need to conserve the environment, in particular sustainable forest management and making it the top of the sustainable development agenda of the government. The task force succeeded in lobbying the cabinet to pass a law to that effect in Kenya and hence the birth of Environment Conservation and Sustainable Forest Management in the Kenyan constitution.²²

Apart from that, there is a co-ordination between The World Bank and The Greenbelt Movement, the World Bank through the Green Environment Facility (GEF) sponsored projects, provides funds to recycle plastic wastes that are dumped in the forest and along rivers and this reduces degradation. The NEMA also has a duty to monitor effluents that are disposed in forests and rivers by commercial industries.²³

It can be argued from the above that contribution of unofficial actors provides official actors with incentives to comply in sharing information. Statistics on forest use, ownership and management has been very scanty, especially on ownership of tea plantations and massive acreage. This supports Wilson's first point that covenants should

http://www.conserveafrica.org.uk/advocacy.php

²³ Nelson, Peter et al. (2007). Strategic Environmental Assessment of the Kenya Forest Act 2005. The World Bank.

be done in public.²⁴ The government to date has not declared who are the true owners of the vast land masses that have been cleared, planted for agriculture and some having tea factories. And what criterion is used to evict people from Mau Forest.

Within the Mau Forest official actors have been dominant on Mau Forest issues. Its dominance was based on the fact that, since creation of modern state system, governments have dominated conduct of state relations, and thus engage in crude means to get their interests met or protected.²⁵ But, unofficial actors have also taken part but in small areas but of great significance especially regarding economic assistance.²⁶ Cooperation and promotion of forest conservation and management has seen unofficial actors taking a front row to mitigate forest loss.

Unofficial actors on environment are open in their conduct of affairs, there are no hierarchies and open diplomacy is their way.²⁷ They are also more suitable and efficient to work with because they are more flexible, able to talk to, deal directly with grass-root population and less expensive.²⁸ The synergy of unofficial actors lies in their adoption of grassroots' participation and stakeholder dialogues to bring out environment and forest issues into perspective. Unofficial actors have brought out the importance and possible benefits of forest resources to current and future generations both locally and

28 lbid

²⁴ Snell, John L. (1954). Wilson on Germany and the Fourteen Points, Journal of Modern History 26 (4): 364-369.

²⁵ J.K Holsti, The State, War and the State of War. Cambridge; Cambridge University Press, 1996, pp 63

²⁶ World Bank Report, op, cit

²⁷ T. Princen Finger, Environmental NGOs in World Politics, op. cit

internationally and thus has brought advancement in social and economic enlighten and thus, reducing forest destruction and conflict.

From the survey, it emerged that there was lack of awareness and concern of the forest as a resource as well as risks involved in the sustainable development challenges among the various publics. This is because most of the people living in and around the Mau forest are not aware of individual protection and rights, World Bank Report 2007 concurs with this statement.²⁹ Different interests among various stakeholders are also another cause of unsustainability of forest, this is evident in the expansion of large scale agricultural schemes in Mau Complex and its environments.

Environmental studies and introduction of outlined syllabuses in various institutions on environment are key contributors to the development of information and innovative solutions to Mau Forest loss.³⁰ One such recent initiative was the introduction of Wangari Maathai Institute for Peace and Environmental Studies at the University of Nairobi, which seeks to educate, develop courses offer learning materials that are tailor-made to environmental sustainability. This will sensitize all stakeholder including policy makers on the importance of preserving forests and its biodiversity to minimize forest loss threats.

The changing trends in environment calls for need to involve people at different levels of study, especially students where environmental educations to be conducted at various

²⁹ World Bank Report, 2007

³⁰ Personal Interview with Unidentified Person, University of Nairobi Forum

levels of education just like any other course. It should start up from certificate, diploma, degree and Masters level. Therefore there is need for such institution with such a curriculum of higher learning to offer this kind of education within their institutions. During the survey, it was found that, the conservation of Masaai-Mau and Transmara forests project through arm of Environmental Education, encourages interaction between publics and some local people at the Mau complex hence promoting information sharing, this should be done nationally for all.

Rural electrification would save a lot of the trees that are presently used for cooking, which has led to severe deforestation in Kenya in general and in Mau in particular. Canadian International Development Agency (CIDA) and World Bank (WB) give grants to people to pursue other sources of energy. In Mau it has been recognized that cooperation on conservation and management of forest resources yields more benefits.³¹ The assumption here is that, shared resources can provide co-operation and sharing of benefits provided resources are objectively recognized and structures created.³² Unofficial diplomacy provides unique forum for all stakeholders involved in the Mau issue a co-operative ground and process to realize the benefits in Mau and build trust and confidence among themselves.

It can be argued therefore from the above paragraph that, forest conservation and management is not a one actor's venture, it demands input from all actors. An example is,

³¹ M. Njagila, Special fund to restore water towers created. Standard Digital; 20 August 2010

³² J. McDonald, Further Exploration of Track Two Diplomacy In Louis Kreisberg, (Ed) Timing The De-escalation of International Conflict, Syracuse, Syracuse University Press, 1991, pp 214

states have the duty to foresee their policies formulated and implemented for instance economic policy like conserving wildlife for tourist attraction, often when they plan, they have commercial interest as well. Hence need to consult non state actors who have the knowledge on planning and achieving that target.

In diplomacy, unofficial actors can be present in all sectors, it is on this basis that this point proposes need for collective institution to facilitate the security of forests across the country and transborder. Currently each state acts on its own when pursuing forest management and conservation issues for resources of the Mau extend beyond political boundaries. Lack of overreaching institutions is a major issue for forest loss. This claim ascertains the environmental school that conflicts are not found within a state and population is not the problem, it's the fact that state is in competition to survive.³³ An active regional institution will be ideal for sustainable development of forest

Finally it can be said, Kenya is endowed with rich natural resources and huge opportunities, cooperation between official and unofficial actors of diplomacy can enhance availability of water supply, energy generation, income generation and other development openings. Since inception of unofficial actors, chances of protecting Mau have increased. Cooperation in Mau is as a result of dialogue between state and non state actors.

³³ P.A Reynolds, An Introduction to International Relations, 3rd Edition, Longman, London, 1995, pp 5-7

iii) Other Issues

(a) Forest Security

Forest security aims to prevent conflict over degraded or scarce resources so that the population who depend on them utilize them mutually for collective benefit.³⁴ In Mau complex, forest security has not been secured because the forest resources are degraded and unequally shared among the various populations. The balance between forest securities can be conceptualized by attempting to fit the Mau forest into Homer- Dixon's model of resource conflicts where forest conflicts are induced by demand supply or structural scarcities. Demand induces scarcity results when population grows and resources are kept constant.

In Mau, the population dependent on the forest has not embraced deforestation threats as a physical threat instead degradation continues at an alarming rate. This issue raises concern for the states, stakeholders and the public at large to cooperate and mitigate consequences before they escalate into serious national threats. The main issues of forest security identified in the study include; population growth, forest loss, water scarcity, land degradation and poverty. The following section will do and in depth analysis on forest security in Mau forest. Deforestation threats in Mau complex affect the use of natural resources which in turn affects quality of life for human, animals and biodiversity.

This calls for formulating of policies which can form as benchmarks for reforms. Looking at current state of affair it can be argued that these policies are unlikely to come from the state, because governments have failed for the past many years to regulate forest

¹⁴ R.P Barton, Modern Diplomacy, op, cit pp 192

loss threats partly because forest resources degradation doesn't factor in as a serious consequence threatening national security. This therefore calls for other actors to contain these before it escalates into conflict. This qualifies the claim that states are not the only actors in the international system.35

For there to be cooperation, states need to create functional institutions which will help focus attention of forest security on the beneficiaries. The beneficiaries of forest security according to human security report of 1994 are individuals.³⁶ This approach will ensure that all individuals will all benefit from the forest resources and at the same time conserve it. The main challenge facing them is that deforestation has been looked at as social issues rather than a political and economic issue and that confined to state boundaries and this denies states an opportunity to preserve this resource as a global common resource. This justifies the need for states to realize that forest security is not a preserve of one actor and achievements are not only within a states border. States need to formulate a communication strategy including both state and non stat actors to raise awareness of the status of forest loss threats among local communities and publics.³⁷

From the study it emerged that most forest loss threats emanate from urban areas because they lack capacity to detect, collect data and sustain environment programmes. Hence there need for sharing information between civic authorities in towns and public. During the research, it emerged that public had no formal basis for presenting forest needs. There is need to involve general public through education on the need to preserve the forest

³⁵ LS Goldstein, op, cit

³⁶ See, Chapter Three for details on Forest Security Report

³⁷ Ibid

resources. The extent of forest degradation that started in Kenya, Mau forest is likely to spread far beyond other regions such Tanzania and Uganda leading to economic hardships not only for if population but affects the rate of annual rainfall in the regions. Droughts and floods are major causes of food shortages and this are exacerbated by land degradation which includes forest loss, water scarcity, soil erosion and desertification.³⁸

Therefore where drought affects the people in Kenya and their agricultural production over time, the risk and vulnerability is likely to spread further to neighboring, states, such as Uganda, Tanzania and Ethiopia. In conclusion therefore, when food shortage arise from climatical changes but not from incompetent government economic policies as is arguably in Kenyan case, then this reflects an example of forest security.

Forest resource management in Kenya (Mau Forest) is influenced by social, political and cultural aspects as well as economic, but since other regions are affected by events in the Mau forest, this therefore calls for regional co-operation. Failure to which will cause social and cultural disruption.³⁹ Success in international co-operation is not only important to avoid violent forest resource conflict but to support national development. Therefore cooperation between official and unofficial actors can help mitigate forest resource conflict both at the national and regional level.

³⁸ World Bank Report, op, cit

³⁹ P. Mwaura, Daily Nation Newspaper, op, cit

(b) Population Growth

Homer-Dixon states that, as population growth increase and resources are kept constant, it results to a demand induced scarcity, as population increases competition for resources also increases.⁴⁰ This is the case in Kenya and to strike a balance, people who have settled in Mau forest need to be given an alternative place and educated on how to use the land given to avoid illegal logging of forest resources. The European Union and World Bank have funded the government to relocate these people.

Population growth has led to deteriorating level of quality of water, agricultural and adequate land for settlement hence leading to conflict. The rampant cases of deteriorating quality of health, crimes and housing facilities for those living in a Mau complex and its surrounding are a prove of how population growth and demand for more land to settle among communities stimulates demand scarcity.⁴¹ Even though state actors are aware of the demand induced threats, they have not done enough to control them. And non-attention can lead to internal conflicts that are more physical among communities leading to security threats. It can therefore be argued that for forest security issues to be considered in the same level as physical national threat, states should cooperate and understand the needs of individuals as paramount to those of national security.

⁴⁰ T. Homer-Dixon, op, cit

⁴¹ See Chapter Three for More Details

c) Land Degradation

In Kenya and specifically in Mau, land degradation is arguably seen as a source of insecurity. Excessive consumption of forest resources for development is a significant feature in Kenya, Tanzania and Rwanda.⁴² Land degradation can be attributed to lack of regional co-operation and minimal access of non actors from environmental issues. Ideally, the threat of land degradation should not have a major impact on forest security, but during the research study, it emerged that parts of Western Kenya, Rift valley, Nairobi, and north eastern where people were prone to long periods of droughts, land degradation posed a serious challenge to peaceful co-existence.⁴³ Most people in this region depend on rainfall for their agriculture and food supply and due to degradation of Mau less rainfall was experienced and thus food insecurity and rampart health risks.

Settlement of people in forested areas poses again a serious challenge. Since they move together with their animals is search of pasture, in the process the animals tramp on vegetation and loosen soil and when it rains the soil is washed and deposited in rivers leading to water flooding since river are unable to determine their natural course causing further damage to vegetation and land. The above situation in Homer-Dixon creates a supply induced scarcity.⁴⁴ Rain water from the above situation degrades the land off its capacity to produce. As much as this has occurred severally, states have failed to come up with plans such as harvesting the water to be used for other needs such as power

⁴² See, Chapter Three

World Bank Report, op, cit

[&]quot;T. Homer-Dixon, op, cit

generation and irrigation. The puzzle here is when it rains water degrades land causing surplus conflict and when the dry season sets in, there is a demand induced conflict.

In summary, it can be argued that forest security in Mau complex will better be addressed when states involve unofficial actors. Currently its a fact that unofficial actors are funded by the state since the donor countries channel the money through the government and this limits their capacity in executing their work. Its therefore important for unofficial actors to define their goals which must be common, principles which may reshape competing interests established by the government. On the other hand, forest security issues in Kenya are heavily looked at as social issues and not as an economic and political issue and the focus tend to be a short term problem. Cultural such as issue fetched least consideration on the national interest list.

Official actors institutional capacities in Mau complex are weak both in terms of governance and political priority. While there is growing public awareness on forest use and conservation, there is least involvement of the public in forest management and conservation decision making and transparency. Involvement of public and integrating forest security into conflict preservation strategies will allow states to improve their administrative capacity and will be able to implement, manage and engage non state actors in the process. This further helps state relate better.

To sum up, its important to involve non-governmental organization because they play an important role in bringing additional funds to mitigate forest loss. A good example is

84

UNEP, forest conservation and management initiatives are designed by most NGO's and citizens influence on allocation of funds is very limited. Ownership and local participation in achieving peace and development is vital and this is derived from conflict school of management. This further strengthens institutional capacities and empowers citizens to have an upper hand in dealing with such adversities as forest resource conflict.

Conclusion

In conclusion, Mau Forest resource cooperation should be used as a tool to improve relations among various states and stakeholders. Institutions are established to enhance communication between governments and non state actors. On the other hand Restoring, Conserving and Managing of forests are greater ingredients in maintaining peace and security in the greater region and ensures well being of all people both locally and internationally. As such, diplomacy in Mau forest will reaffirm Rio Declaration Principles 7 and 27 stating, State Cooperation to Protect Ecosystem and Cooperation between State and People are interdependent and indivisible in maintaining peace, sustainable development and forest protection.

85

CHAPTER FIVE

Conclusion and Recommendation

Summary

This study has attempted to analyse two issues; Diplomacy and Deforestations in Mau forest. Both these issues are of great importance not only to the stakeholders involved in Mau forest, but also to the entire study of environmental diplomacy. Considering this in mind, the attempt made in this study to contribute to knowledge is in any language modest. However it is the opinion of the author that the findings, thoughts, visions, and conclusion made in here, may find their way to contribute to intellectual development of diplomacy and environmental diplomacy studies.

Despite the gravity of the problem in Mau forest, the forest has been given far less attention by the Kenyan government and donor community than it is due. There are economic and political reasons behind this governmental neglect of the Mau forest. Additionally there is major degradation of the Mau forest because most causes of forest loss, land degradation are as a result of individual contribution, for instance cutting down forests for fuel wood and construction, stocking large number of animals and grazing them in forest and logging.

When one considers that Mau forest is dependent by countries like Tanzania and Ethiopia among others and its home to one third of the African population which is totally dependent on Mau forest, the need for policies geared towards reducing population is vital. When Mau was created the resources were enough to support all the population around it, they were finite and conditional to support limited number of people, these conditions remained true until the 1960s. As population grew, the scramble for finite resources has since been strained to the extent that resources are a source of conflict among different groups.

Key Findings

Population growth exerts pressure on resources bases.¹ According to Homer-Dixon, when population increases and resources are constant, it creates a demand induced scarcity, whereby people are forced to depend on the few resources that are available.² Significant increase in population puts pressure on natural resources like forests, water, food and grazing pastures. Demand for resources has forced population to move to forest areas in such for land, food, water and pasture for their animals.³ When this migration is replicated over the whole Mau region, it renders and exposes the forest to destruction and degraded.

Forest Institutions and legal framework, currently, Kenya's forest policy and legislation are scattered in a multiplicity of resources and departments that deal with forest conservations and management which are equally numerous.⁴ Section specific laws are

¹ P.N. Gleditsch, Environmental Change, Security and Conflict. Turbulent Peace: *The Challenge of Managing International Conflict*. (Eds) C. A States Institute for Peace, 2001, pp 233

² Ibid

³ T. F. Homer-Dixon, on the Threshold: Environmental Change as causes of Acute Conflict in: International Security, vol. 16, No. 2 (fall 1991), pp. 76-116.

⁴ T. Yatich, Awiti A. Policy and Institutional context for NRM in Kenya: Challenge and Opportunities for Landcare. ICRAF Working Paper No. 43 2007 Nairobi. World Agroforestry Centre.

deficient in that they are characterized by fragmented and uncoordinated sectoral legal regimes that are developed to facilitate resource allocation and to deal with adverse effects of forests resources exploitation. The sectoral institutions under these laws often find themselves in regulating competition they range form government departments, nongovernmental organizations, private sectors, associations community based organization among many others. With the range of institutions there is bound to be operational conflict and duplication of roles and responsibilities.⁵

The environment has a capacity to modify the behavior of societies by causing conflict concomitant with a number of political, economic and social factors. The question arises as to where this capacity stems from; intrinsically natural phenomena such as flooding or rapid processes of soil degradation provoke immediate responses by human beings. These views are used in this study as a guide to demonstrate that co-operation is important when issues of deforestation are being considered. Cooperation and compatible goals are often blocked by misconception, misperception lack of understanding and weak political structures which are main ingredients which create conflicts among people or societies.⁶

In addition the role of non-state actors in state activities and particularly in pursuing forest management and conservation efforts is limited.⁷ Olang Luka observes that shared

⁵ Ibid

⁶ Ohlson, 1999, op cit, pp 69

⁷ J.S Goldstein, Introduction to International Relations, op, cit

forest resources are important issues to be left just to states.⁸ This statements made by Olang, Luka perhaps had in mind that forest use can degenerate into conflicts if prevailing destruction and non conservation and management of the Mau forest is ongoing. It is on this premise that diplomacy is considered most appropriate approach for such an issue as deforestation.

Unofficial actors brings on board certain strength in that, it brings together non official, but inferential numbers of the parties for direct, private interaction with joint analysis and problem solving of the conflict.⁹ The intermediaries are typically knowledgeable and skilled practioners who are impartial and whose training and expertise enable them to facilitate productive dialogue and problem solving between parties. The participants in this effort however, are not official or members of negotiating teams, but rather politically involved and often politically influential member of conflicting societies. Their unofficial position allows them greater freedom to explore alternative perspectives, formulate new joint ideas and open channels of communication between parties who otherwise would find it difficult to meet or acknowledge any contact.¹⁰

Unlike official diplomacy unofficial diplomacy is arguably less visible in conflict management, this is so particularly to the fact that unofficial actors are less driven by power and because their operations are influenced by informal structures. In addition,

⁸ Olang, Luka. Deforestation and Land degradation of the Mau Forest Complex in Eastern Africa: A review for Conservation and Restoration purposes. Environmental Monitoring, 2012, pp 245-270

⁹ D. Kappeler, M. Mwagiru, J. Odera, *Diplomacy: The Concept Actors, organs Rules and process*, Institute of Diplomacy and International Studies, University of Nairobi, 1991, pp8-25

¹⁰ [bid

partially due to the fact that operations of unofficial actors are not official policies and the process of unofficial diplomacy is not pre occupied with formal agreements and structures. Unofficial diplomacy is based on the notion that power alone cannot explain the social relationship of actors who are in dispute. It therefore identifies the cause of conflict as, lack of satisfaction, limited participation and recognition. Farah argues that when these causes of conflict are not satisfied there can be no legitimized relationship or solving of conflicts.¹¹

According to Mwagiru, unofficial diplomacy tends to stress interpersonal, socialpsychological dynamics aimed at increasing each sides understanding of the underlying factors motivating the others position, and its own, as a tool to open up possibilities for cooperative problem solving.¹² Unofficial actors activities concern efforts to develop new approaches to regional forest security where there is not necessarily a specific conflict being addressed by the unofficial actors process in question. One weakness of unofficial actors is that they can have a bias in bringing matters into the open when for instance they have an interest in the outcome of a conflict.

Official actors on the other hand have to balance out all the interests involved and are generally predisposed to favor confidentiality and discretion to avoid embarrassment or damage to its relations with other governments. On the other hand, Berman and Johnson observe that the important characteristic of unofficial diplomacy is that they can be

¹¹ Ibrahim, Q.F, Dual Diplomatic Approach in Conflict Management: The International Peace Initiative in Somalia, 1991- 1999 M.A Thesis, University of Nairobi, 2000 p. 45

¹² M. Mwagiru, The International Management of Internal Conflict in Africa: The Uganda Mediation, op, cit.

disowned at any time by those in official capacity, whom they were carrying exploratory functions for.¹³

Recommendations

Although there are economic and political reasons behind this governmental neglect of the Mau forest, it's the responsibility of the government, stakeholders and the people of Kenya to draw attention of the world to the Mau forest. At the same time, Kenyan government should assume the lead role and guide the rest of the state on main areas where there are problems which further cause difference of opinion and stagnation among stakeholders like looming conflicts. Fortunately where there was conflict between the Mau evictees and the government, there is now optimism of their end, this way the government can stop concentrating on internal physical conflicts and invest in individual protection issues as well as forest resources.

There is need for the government to provide a means of protecting the quality of the Mau from degradation. Ideally, forest resource protection within the Mau should be a responsibility for individual person, the state should only be blamed in abstract. The key development strategy for Mau forest should be to slow down the degradation process through reforestation programmes, technologically oriented irrigation, population control and enhance the development of hydro-electric power which could greatly reduce deforestation. The Kenya model of rural electrification can be a model for other states like Tanzania who depend on water flow from Mau for power generation and if bureaucracy was reduced.

¹³ Berman, op, cit.

The economic and cultural destinies of approximately 300 people are bound to Mau and its surrounding, with so many interests vying for such a sprawling region, the Mau will continue to be a source of contention. But it is not so much about the trees that is available in the Mau forest that make it scarce, but rather it is uneven distribution and inappropriate usage coupled with deforestation, overgrazing and illegal logging. Forest threats are as a result of individuals pressure and not the government, government is abstract.

For comprehensive deforestation in Mau forest to be tackled with any hope of success, the ecogeographical region must be accepted by its occupants as a unit of shared concern. Any political or other enemities within the region, whether its between states or clans, must be laid aside difficult though this may seem as necessary shared struggle for common benefit.

Looking beyond deforestation threats, there's now increasing acceptance that the underlying causes of forest threats are often related to institutional, governance, awareness and capability issues. Inappropriate or non existence policy is also often cited as cause of unsustainable issues. For example, policies that promote economic growth without adequate land use planning and forest use and management legislation can lead to concentration of economic activity, congestation and forest depletion.

On the theme of unofficial diplomacy, it can be said that, the special competence of the modern state system is the resolution of collective dilemmas. It is only the state that has presently the power and legitimacy to regulate the actions of disparate individual state who, in their pursuit of individual gain, often destroy shared forest resources.

Cooperation is required to address transboundary forest problems and cooperation must rely on non state actors.

The fear of states to incorporate non state actors stems from the fear that their inclusion comes at the expense of state power. As states expand and co-ordinate their regularity powers, they should incorporate non state actors in the management of issues within Mau. The terms of unofficial actors participation reflect the resources and skills as well as the political and technocratic incentive they possess. Although the long-term participation of unofficial actors in the Mau forest is not clear, their participation eases political pressure and enhances the ability of state to create and maintain regional forest protection rules.

But such participation can bring with it danger of missed opportunities, slower and more complex control of forest issues by states. The fear here is that, if unofficial actors are befitted with the responsibility to manage forests, it is possible that their roles may continue growing and at some point dominate individual state roles. At this point, it can be said that, enhanced participation of non state actors in forest issues **may present a** Pandora box that official actors may not be able or may not want to close.

Finally, the journey of this study comes to an end with a remark that, analysis of unofficial diplomacy in forest protection in Mau forest is a wide topic to be accommodated within this limited space of study and time. The author accepts any shortcomings on areas under study that were not exhaustively examined but does not admit to any shortcomings.

BIBLIOGRAPHY

- Amnesty International: Kenya Nowhere to go: Forced Evictions in Mau Forest Briefing Paper, 30 May 2007
- Anderson, K and R. Blackhurst, (1992) eds, The Greening of World Trade Issues. Ann Arbor: University of Michigan Press and London
- Annual Report, Food Security in the Horn of Africa, African Security Perspective, Vol: 112, No: 2, 2009, pp 1-148:7
- Arthur, W. (1986), ed. Global Resources and International Conflict: Environmental Factors in Strategic Policy and Action, Oxford: Oxford University Press.
- Bahta, S. (2008) 'Equitable Resource Management and Regional Security in the Horn of Africa in Makumi Mwagiru (ed) Human Security, Setting the Agenda for the Horn of Africa, Africa Peace Forum, Nairobi pp. 116.
- Barbara, I. and Chee, J. (2000) Designing a New Architecture for Global Environmental Governance; (London: International Institute for Environment and Development (IIED), pp. 59
- Barbier, E.B., J.C. Burgess and A. Markandya. (1991). "The Economics of Tropical Deforestation". Ambio 20 (No. 2, Apr.): 55-58.
- Barrett, S. (2003). Environment and Statecraft: The Strategy Environmental Treaty-Making. Oxford: Oxford University Press.
- Barston, R. P, (1988), Modern Diplomacy, Longman, London, pp. 184.
- Barston, R. P, (2007), Modern Diplomacy, Longman: London, pp. 11
- Berridge, G. R. (2005) Talking to the Enemy; How States Without Diplomatic Relations Communicate, op, cit
- Birnie, P. 'The role of International Law in Solving Certain Environmental Conflicts in Carol, J.E (Ed) International Environmental Diplomacy: The Management and Resolution of Transformation Environmental problems Cambridge: Cambridge University press, 1990, pp 95, 98 - 101.
- Bridge, G. R. (2005) Diplomacy: Theory and practice, Basingstoke: Pa Igrave Macmillan, Third edition, 2005 pp.21.
- Burton, J. and Dikes, F. Conflict: practices in Management, Settlement and Resolution, op, cit
- pp. 139. Butler, Rhett (2009). Are We on The Brink of Saving Rainforests? .Retrieved November,
- Butler, Rhett (2009). "Big REDD". Washington Monthly 41: 2.
- Butler, Rhett A. (2009) Impacts of Population and Poverty on Rainforest, Washington
- Capital News, July 15, 2008: Raila meeting endorses Mau evictions

Carius, A. and Imbusch, K. (1999), Environmental and Security in International politics- An Introduction in: Environmental Change and Security: A European Perspective, op. cit.,

- Cassandra, S. (2010). Nations Approve Cancun Climate Package. The Wall Street Journal. From the original on 4 February 2011. Retrieved January 2011.
- Centre for Research on Africa, (1991) Environmental Polices for Sustainable growth in Africa, New Jersey.

- Christoffersen, L. E. (1994): A Bridge-Builder for Nature Conservation. Green Globe Yearbook (IUCN), Accessed 11 June 2008
- Conca, K. and Dabelko, G.D. (2002) Environmental Peacemaking: Baltimore, MD: Johns Hopkins University Press, pp 3
- Davidson, W.D and Montville, J.V (1982) "Foreign policy According to Freud", in Foreign policy, 45, Winter, pp. 1-42:2-4.
- Depledge, J. (2000), United Nations Framework Convention on Climate Change (UNFCCC) Technical paper: Tracing the Origins of the Kyoto Protocol: An Article-by-Article Textual History, UNFCCC
- Dessai, S. (2001), Tyndall Centre Working Paper 12: The climate regime from The Hague to Marrakech: Saving or sinking the Kyoto Protocol?, Norwich, UK: Tyndall Centre
- Dinar, A. (2007) 'Development Group of the World Bank', Climate change and Agricultural in Africa pp. 2-4.
- Economic Survey, (2010) Publications of Kenya National Central Bureau of Statistics, Ministry of Finance and Planning.
- Ehrhardt-Martinez, Karen. (2003) Demographics, Democracy, Development, Disparity and Deforestation: A cross-national Assessment of the social Causes of Deforestation: Atlanta
- Ekardt, F.Von Hövel, A. (2009) Distributive Justice, Competitiveness, and Transnational Climate Protection. In: Carbon & Climate Law Review, Vol. 3. pp. 102-114.
- Gilboa, E. (1988) Media Diplomacy; Conceptual divergence and applications, The Havard International Journal of Press/ Politics Vol: 3, pp 3-67:4-8
- Gilboa, E. (2001) Diplomacy in the Media Age: Three Models of Uses and Effects, Diplomacy and Statecraft, Vol: 12, pp 221
- Gleditsch, N.P, (1970), Environmental Change, Security and Conflict, pp.53
- Gleditsch, P. N. (2001) Environmental Change, Security and Conflict. Turbulent Peace: The Challenge of Managing International Conflict. (Eds) C. A States Institute for Peace, pp
- 233 Green, O. (2001) "Environmental Issues in Baylis of J et al, The Globalization of World Politics,
- Oxford, pp. 338.
- Harrison, P. (1987). The Greening of Africa. London: Paladin Grafton Books Havermans, J. (1999), Private Professionals for Peace in People building peace: Inspiring
- Stories from Around the World, European Centre for Conflict Prevention, pp. 22.
- Holsti, J. K. (1996) The State, War and the State of War. Cambridge; Cambridge University
- Homer-Dixon, T. F. (1991) On the Threshold: Environmental Change as causes of Acute Conflict in: International Security, vol. 16, No. 2 (fall 1991), pp. 76-116.
- Homer-Dixon, T. F. (1996) The Project on Environment, Population and Security: Key Findings of Research, Environmental Change and Security Report, 2: pp. 48
- Ho-Won Jeong, (2000) Peace and Conflict studies, Op, cit, pp. 98-99.
- http//www.conserveafrica.org.uk/advocacy.php
- http://www.maurestoration.go.ke/index_php/achievements Ibrahim, Q.F, Dual Diplomatic Approach in Conflict Management: The International Peace
- Initiative in Somalia, 1991-1999 M.A Thesis, University of Nairobi, 2000 pp. 45

Intergovernmental Panel on Climate Change (IPCC), "Climate Change 2001: Impacts,

Adaptation, and Vulnerability (Summary for Policy Makers)" and "Climate Change 2001: The Scientific Basis."

- Intergovernmental Panel on Climate Change) Climate Change (IPCC) (2001): Third Assessment Report, Geneva
- International Union for Conservation of Nature and Natural Resources (IUCN), (1980) World Conservation Strategy: living resource conservation for sustainable development, data.iucn.org/dbtw-wpd/edocs/WCS-004.pdf Accessed February, 2011
- Irwin, T. (2009). 'Implications for Climate Change Policy of Research on Cooperation in Social Dilemma'' Policy Research Working Paper 5006, World Bank, Washington D.C.
- Jacobs A. H. (1980) Pastoral Maasai and Tropical Rural Development In R.H. Bates and M.F. Lofchie (eds) Agricultural Development in Africa Issues of Public Policy Praeger, New York
- John Baylis, Steve Smith. (2005). The Globalization of World Politics (3rd ed). Oxford. Oxford University Press. pp.454-455
- John Schelhas and Russell Greenberg, (1996) Forest Patches in Tropical Landscapes, (eds); Island Press
- Kamweti, D. Osoro and Mwiturubani D. (2011) Nature and Extent of Environmental Crime in Kenya, Institute for Security Studies (ISS)
- Kappeler, D., M. Mwagiru, Odera, J. (1991) Diplomacy: The Concept, Actors, organs Rules and process, Institute of Diplomacy and International Studies: University of Nairobi, pp 8-10
- Keith Hamilton, (1995) The Practice of Diplomacy: Its Evolution, Theory and Administration; Routledge Publishers.
- Kelman, H. (1996) "The Interactive Problem Solving Approach," in Constructive Conflicts: From Escalation to Resolution, C.A Crocker, and F.O Kreisberg (Eds) New York: Rowman and Littlefield, pp: 82.
- Kenya Minister for Finance, The Government Financial Management (water Towers Conservation Funds) Regulations, 30 July, 2010.
- Keohane, R., P. Haas and M. Levy, (1993) Institutions of the Earth, Cambridge, MA: MIT Press,
- Keohane, R.O. & J. S. Nye, Jr.(2000) "Introduction "In: Governance in a Globalizing World, Joseph S. Nye, Jr and John D. Donahule, (Eds). Washington, DC: Brookings Institution,
- Kiyiapi J. L. (1995). Contrasting Forest Conditions in Transmara: Characterization, Management Questions and Suggestions. The Examples of Emperue and Nyakueri Forests, Commissioned by GTZ/TDP
- Krause, K. and Michael, C. (1996) Broadening the agenda of security studies: Politics and methods. Mershon International studies Review, No. 40, pp.186-239:187-188.
- Krhoda, G. O. (1988) The Impact of Resource Utilization on Hydrology of the Mau Hills Forest in Kenya, Mountain Research and Development, Vol. 8, Nos. 2/3, ,Nairobi. pp. 193-200
- Louise, D. and McDonald, J. (1996) Multi track Diplomacy: A systems Approach to peace, third Edition, West Hartford: Kumanai press, pp. 12.
- Ludeki, J. V, Wamukoya G. and Walubengo D., Environmental Management in Kenya: A framework for Sustainable forest Management in Kenya – Understanding the New Forest Policy and Forest Act, 2005 (Publisher: Centre for Environmental Legal Research and Education)

Magut Stanley, The Star Newspaper, Friday 24, August 2012

Masinde, S. and L. Karanja, (2011) Climate Change Global Corruption; the Plunder of Kenya's Food (Nairobi: Kenya).

Mbugua, David K. (2003). The forest revenue system and government expenditure on forestry in Kenya. Rome: Food and Agriculture Organization of the United Nations (FAO).

McDonald, J. (1991) Further Exploration of Track Two Diplomacy In Louis Kreisberg, (Ed) Timing The De-escalation of International Conflict, Syracuse, Syracuse University Press, pp 214

McDonald, J.W and D.B Bendahmane (1987), (Eds) Conflict Resolution: Track two Diplomacy, Washington Foreign Service Institute.

Melissa Thaxton, (2007) Integrating Population Earth and Environmental in Kenya. Population Reference Bureau, Bride, Making the Link, pp 3-4.

Meyer, S.M. (1995). 'The Economic Impact of Environmental Regulations." Journal of Environmental Law and Practice 3 (2): 4-15

Montville, J.V. (1987), The Arrow and the Olive Branch; A case for Track Two Diplomacy in McDonald J.W and Bendahman, DB, (eds) Conflict Resolution : Track Two Diplomacy,

Washington: Foreign Service Institute, pp 5-20

Morgenthau, H. J. (1978) Politics Among Nations, 5th Editions, New York Knopf, pp. 249. Morgenthau, H.J, (1996) Politics Among Nations, 3rd edition (New York; Alfred A. Knopf

Mwagiru, M. (1994) The International Management of Internal Conflict in Africa: The Uganda

Mediation 1985, PhD. Dissertation, University of Kent at Canterbury, pp. 69.

Mwagiru, M. (2000) Conflict: Theory, process and Institutions of Management, Nairobi: Watermale, Publications, pp. 82-83.

Mwaura, P. Daily Nation Newspaper, 21 March, 2010

Myers, Erin C. (2007). Policies to Reduce Emissions from Deforestation and Degradation (REDD) in Tropical Forests. Resources Magazine: 7. Retrieved November 2009

Myers, Erin C. (Dec 2007). "Policies to Reduce Emissions from Deforestation and Degradation

(REDD) in Tropical Forests" (PDF). Resources Magazine: 7. Retrieved 2009-11-24. Myers, N. (1993). "Tropical Forests: the Main Deforestation Fronts." Environmental

Conservation 20 (No.1, Spring): pp 9-16.

National Climate Change Response Strategy. Government of Kenya April 2010. Nelson, Peter et al. (2007). Strategic Environmental Assessment of the Kenya Forest Act 2005.

Njagih, M. Special fund to restore water towers created. Standard Digital; 20 August 2010

Ochieng. R, (2009), A review of degradation status of the Mau Forest and Possible Remedial

Measures (Wageninger University) pp. 15-24 Okoth-Ogendo H.W.O (1991), Tenants of the Crown: Evolution of Agrarian Law and Institutions in Kenya. Atrican Centre for Technology Studies, Nairobi, Kenya

Olang, Luka. (2012) Deforestation and Land degradation of the Mau Complex in Eastern Africa:

A review for Conservation and Restoration purposes. Environmental Monitoring (InTech Pander H., (1995), Study on the Land Tenure and Land Policy in the Transmara District.

Situation and Conflicts: Transmara Development Programme. Personal Interview with Halifa Drammeh, Environmental Governance, United Nations

Environmental Programme, Nairobi, on 2nd September 2012

Personal Interview with Hassan Noor, Chief Coordinator, Interim Coordinating Secretariat on Mau Forest Restoration

Peter M. Hass, (2002) Constructing Environmental Conflicts from Resource Scarcity, Global Environmental Politics, 2: pp 1-11

- Pricern, T. (1994) Environmental NGOs in World politics, London Routledge, pp. 15
- Primavera, J. Honculada, (1994) Shrimp Farming in the Asia-Pacific: Environmental and Trade Issues and Regional Co-operation; Nautilus Institute Workshop on Trade and Environment in Asia-Pacific: Prospects for Regional Co-operation, September 23-5, Berkeley, Calif
- Reardon, T. and S. A. Vosti. (1995). "Links Between Rural Poverty and the Environment in Developing Countries: Asset Categories and the Investment Poverty." World Development 23 (No.9, September): 1495-1506.
- Repetto, R. (1990). "Deforestation in the Tropics." Scientific American 262 (No.4, April): pp 36-42.
- Reynolds, P.A (1995), An Introduction to International Relations, Third Edition, Longman, pp 77
- Ronnie D. Lipschutz, Environmental Conflict and Environmental Determinism: The Relative Importance of Social and Natural Factors, In: Conflict and the Environment, op. cit., pp. 35-50
- Ross, L. (2004) "What Do We Know About Natural Resource and Civil War?", Journal of Peace Research, 41; pp 337-356
- Scherr, Sara, and S. Yadav. (1996) ** Land Degradation in the Developing World: Implications for Food, Agriculture, and the Environment to 2020, Washington D.C
- Sharma N. P (ed) (1992). Managing the World's Forest: Looking for Balance Between Conservation and Development. Kendal/Hunt Publishing Co., IOWA
- Skole, D. and C. Tucker. (1993). "Tropical Deforestation and Habitat Fragmentation in the Amazon: Satellite Data from 1978 to 1988." Science 260 (June 25): 1905-1910.
- Snell, John L. (1954). Wilson on Germany and the Fourteen Points, Journal of Modern History
- Terborgh, J. (1992) Diversity and the Tropical Rainforest, (New York: Scientific American
- The Interim Coodinating Secretariat, Restoration of the Mau Forest Ecosystem, Office of the

Prime Minister, November, 2011 The Interim Coordinating Secretariat (2009), Office of the Prime Minister, Chief Coordinator, A Compilation of Mau Forest Complex; A key water tower (Nairobi, Kenya)

- The World Bank Group. (October 11, 2009), Two New World Bank Facilities will help Fight
- Climate and Deforestation. The World Bank, Environment Strategy Paper: Making Sustainable Commitments (Revised Draft), (Washington D.C:2001c)
- The World Bank, Implementation Completion Report No. 22390-TUN: North West
- Mountainous Areas Development Project. (Washington D.C Processed; 2001d) The World Bank, World Development Report, Development and the Environment (Washington

D.C 1992) pp.53

- Thomas Yatich, Awiti A. Policy and Institutional context for NRM in Kenya: Challenge and Opportunities for Landcare. ICRAF Working Paper No. 43 2007 Nairobi. World Agro forestry Centre.
- Tol, R. S. J. (2008). "Why Worry about Climate Change? A Research Agenda" Environmental Values 17 (4): 437-70
- UNEP (2009), Kenya: Atlas of Our Changing Environment, Printed; Progress press co. Ltd Malta; London
- UNEP, (2004) Understanding Environment, Conflict and Cooperation. Nairobi: Woodrow Wilson International Centre for Scholars/UNEP
- United Nations Convention to Combat Desertification (UNCCD), (2009). Water Scarcity and Desertification
- United Nations Development Programme, Human Development Report, 2006
- United Nations Development Programme, United Nations Environment Programme, World Bank, ' 'People and Ecosystems: The fraying web of life "World Resources Institute. 2000
- United Nations Development Programme, (1995) Human Development Report, New York: Oxford University Press, pp. 22
- United Nations Environment Programme, Annual Report of 2009, pp 146
- United Nations Environmental Programme, (1991), Status of Desertification and Implementation of the United Nations Plan Action to combat Desertification. Nairobi: UNEP

×

- UN-REDD Programme (March 2010). US\$14.7 million approved for three countries at the UN-REDD Programme's 4th Policy Board Meeting in Nairobi. Retrieved 2010-01-12.
- Von der Goltz, (2009), High Stakes in a Complex Game: A Snapshot of the Climate Change Negotiating Positions of Major Developing Country Emitters, Center for Global Development
- Wass, P. A. (ed) 1995. Kenya's Indigenous Forest. Status, Management and Conservation. IUCN, Gland, Switzerland, and Cambridge, UK. pp. 205
- Weyant, J.P. (ed) (1999). The Costs of the Kyoto Protocol: A Multi-Model Evaluation. Energy Journal (Special issue). Retrieved 8 August 2009.
- World Resource Institute, People and Ecosystems, (Publications, 1998-1999)
- www.eastafricanblog.net/ accessed on 21 July 2010
- www.unep.org/environment/deforestation, accessed on 15 August 2012
- Yohe, G. J. Cohen, Q.K. Ahmad, and R.T. Perez "Perspectives on Climate Change and Sustainability." In Climate Change 2007: Impacts, Adaptation and Vulnerability. Cambridge, UK: Cambridge University Press