TRACK TWO DIPLOMACY IN ENVIROMENTAL SECURITY IN THE NILE BASIN

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DECLARATION

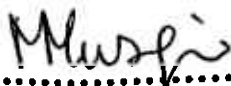This thesis is my original work and has not been submitted for a degree to any other university.

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Dedication

This work is dedicated to my beloved parents, Mr. Ezekiel Omwenga and Mrs. Mary Omweri, who have encouraged me to complete my education and provided me with their prayers and pure love throughout my life. My sister Marvelyn and my brother Amon, and fiancée Susan Okeyo who have been very much concerned about my progress in every aspect of my life, providing me with care and all the necessary needs.

May the Lord Almighty, Creator of Heaven and Earth, grant and give them peace, happiness and health.

Acknowledgements

Abstract

This study examines the role of track two diplomacy in environmental security in the Nile basin. It analyses the study under three themes namely; security, track two diplomacy, and environmental security in the Nile basin. 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 Primary data was pursued under two categories, unpublished primary data and published primary data.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 non governmental organizations were identified, these organizations are involved in Nile issues, 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 Unpublished primary documents were sourced from these identified organizations.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 non governmental organizations, information was also sought from the Nile Basin Initiative country office in Kenya, this was useful in understanding the role of track one actors in the Nile basin.

This study used the liberalism theory as the framework of study. Liberalism theory was important since it recognizes the fact that in the conduct of international relations, states are not solitary actors, but are substituted by non state actors.

From the research study, it emerged that, track two actors enhance cooperation of relations among state actors in the Nile basin, although they don't substituted the role of states, they are useful because of their skills, technical knowledge and ability to lobby. It also emerged from the study that environmental security in the Nile basin has not been secured.

There are numerous threats to environmental security, like land degradation, pollution, population growth and loss of wetlands. The main reason why states have failed in securing environmental threats is because, they pursue policies as solitary actors yet the Nile resources is a transboundary issue. It also emerged that internal conflicts within states deter stares from pursuing environmental security.

List of Abbreviations

AU	African Union
CFA	Cooperative Framework Agreement
CGIAR	Consultative Group on International Agricultural Research
CIDA	Canadian International Development Agency
COMESA	Common Market for Eastern and Southern Africa
CPWF	Challenge Program on Water and Food
EAC	East African Community
EAP	Environmental Action Plan
EASREAEC	Eastern Africa Sub Regional Environment Action for Environment Conservation.
ECP	Environmental Crimes Project
ESP	Environmental Security Programm
FAO	Food Agriculture Organization
GEF	Green Environmental Facility
ICT	Information and Communication Technology
IDIS	Integrated Database Information System
IGAD	Inter Governmental Authority on Development
IPCC	Intergovernmental Panel on Climate Change
ISS	Institute for Security Studies
IUCN	International Union for Conservation of Nature
IWMI NBEA	International Water Management Institute for Nile Basin and Eastern Africa
NBD	Nile Basin Discourse
NBI	Nile Basin Initiative
NBS	Nile Basin Society
NDF	National Discourse Forum
NEMA	National Environmental Management Authority
NGO	Non Governmental Organizations
NTEAP	Nile Transboundary Environment Action Project
ODI	Overseas Development Institute
TECCONILE	Technical Cooperation Committee for the Promotion of the Development and Environmental Protection of the Nile Basin
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
WABB	Water Apportionment Board Apportionment Board
WB	World Bank
WRMA	Water Resources Management Authority

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Introduction

Efficient management of transboundary environmental resources can play an important role in promoting economic, health, food, gender and environmental security of states. States sharing resources should therefore endeavor to protect resources to ensure that they last to sustain generations. However, when shared environmental resources lack a clear management plan or are misused by people, they can lead to conflicts between communities, degradation and resource constrain.

When environmental degradation continues unabated it can lead to a situation whereby the security of individuals is challenged. Ignoring security threats that emanate from the environment can generate into a national security threat. Environmental threats pose security challenges to states when competition for resources escalates to a physical confrontation. To avoid conflicts, there is need to manage resources and share them equitably, managing trans-boundary resources is not a preserve for state actors only, it is an enterprise for all actors and stakeholders who depend on resources.

Environmental resources in the Nile basin are shared among ten states; five of them are among the poorest in the world. Water which is the common resources among the ten riparian states, and it is not shared equally, this, together with the factor of poverty, population growth and internal conflicts, necessitates member states to ignore the environment and exploit resources surrounding water bodies without order. If the Nile basin resources are to sustain the regions population capacity, then there is need for actors of diplomacy to pursue strategies which involve all stakeholders and protect the environment from threats can lead to physical confrontation.

Statement of the Problem

Nile riparian states are faced with an acute degradation problem. Recurrent cyclical droughts, desertification, degradation and scarcity of water, have potential to derail development, pose a threat to national security and displace people especially pastoralist communities across borders, in addition, migration of people can put pressure on state boundaries and create feelings of xenophobia among the local populations who have to compete for the scarce resources[1].

Environmental threats in the Nile basin are caused by commercial development in urban centers, uncontrolled pollution of rivers, over fishing, overstocking of livestock, uncontrolled waste disposal and deforestation. The total amount of water in River Nile is also unequally shared between Sudan and Egypt, however, it is not the amount of water in the Nile that makes it scarce, but it is uneven distribution. With the growth in population rising and availability of environmental resources falling, there is likelihood that a pull of this all this issues when stimulated by demand, supply and structural incapacities can interfere with national security of Nile basin states.

Previous efforts by track one actors to renegotiate the prevailing treaty on water use have been dragging for a long time without solution. Track One actors are arguably concerned with physical security of states. When viewed from far it appears that state security is the main area of concern, on close analysis, it emerges that non physical threats like environmental degradation have potential to cause conflicts. It is on this premise that this study research seeks to find out the role of Track Two diplomacy in environmental security in the Nile basin.

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[1] J.E Maxted and A.Z Zegeye, ' Human Security and Conflict in The Horn of Africa' *Africa Security Review*, Vol:10, 2001, pp. 1-33:p. 5.

Objectives of Study

Primary objective

To examine the role of Track Two diplomacy in environmental security in the Nile basin

Secondary Objectives

i. To assess the role of Track Two diplomacy in the Nile basin

ii. To find out the impact of Track Two diplomacy in environmental security.

iii. To examine environment security in the Nile basin.

Literature Review

This chapter will generally analyze literature on environmental security and actors of diplomacy in the Nile basin. The literature review will consider scholarly debates on Track Two diplomacy, environmental security and the ecosystem of the Nile basin. In the process it will compare and contrast arguments of scholars, group pro arguments and anti arguments of the themes into similar groups, all this will be done to put the topic of this research study in context.

In the modern international system, issues of environmental security have emerged as a major threat to national security. According to Greene, the emergence of scientifically supported evidence of risks emanating from the environment threats led to the elevation of environmental issues from low politics to high politics in international relations[2]. Morgenthau's analogy of high politics and low politics is premised on power

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[2] O. Greene, 'Enviromental Issues' In Baylis J et al , *The Globalization of World Politics.* Oxford, 2001, p 338.

relations and national interest among states. His contribution in this study is that in the international system issues that are important to state survival are graded as high politics, high politics issues threaten the security, sovereignty and survival of a state, therefore the state is forced to dominate their management to guarantee its survival[3]. Morgenthau's understanding of issues was arguably influenced developments during the Second World War. During this period realism was the dominant theory; realism considers relation between states in terms of power and views security in terms of military capability. It is perhaps on this basis that states have dominated Nile issues since the first treaty regulating Nile waters was signed in 1929 and revised in 1959.

Gleditsch says that environment security threats are mainly caused by land degradation and resource constrain. In the Nile Basin, environmental degradation is dominant; according to Gleditsch, degradation exists in many shades that include, soil erosion, deforestation and water scarcity. Resource constrain on the other hand is engulfed in structural sharing of resources[4]. According to Debasse, the basis of structural differences is the 1959 treaty which gave Egypt and Sudan rights to Nile waters while locking other states like Ethiopia which accounts for 86 percent of the Nile river.

Barston says that ideally the existence of a resource such as water should be a source of wealth and well being to the community[5], but Nile waters have exhibited potential to be a source of conflict and national insecurity. This is accredited to the fact that within the Nile riparian states, there has been a growth in population since the first treaty was signed in 1929 and revised in 1959. The growing population is forced to share available resources which were allocated when the treaty was signed and populations of

[3] H.J. Morgenthau, *Politics Among Nations*, Third Edition, New York: Knopf, 1978, p. 234
[4] Nils Petter Gleditsch, *Environmental Change, Security, and Conflict*, p 53.
[5] R.P Barston, 1988, *Modern Diplomacy*, Longman, London, p. 184.

people were few. Homer-Dixon says that when a natural resource is kept constant but the number of people depended on it increase, can stimulate conflict[6]. In addition, Homer-Dixon argues that environmental factors can play an important role in generating and worsening conflict. He distinguishes three forms of resource 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[7].

Apart from demand induced conflict, Waterbury argues that weak governance and unequal distribution of resources presents fertile ground for environmental threats to prevail[8]. Most Nile riparian states lack strong governance structures due to internal conflicts like in Sudan, Somalia, Uganda and Ethiopia. In addition, Elhance says that the Nile River being a common good is bound to be exploited by some states at the detriment of others[9]. Abdalla argues that the dominance of Egypt and Sudan in the use of the river waters provides a recipe for other states to abuse the resource, the prospect of Southern Sudan becoming an independent state, and eventual eleventh riparian member state increases the demand for water resources and creates course for environmental crimes[10].

[6] T.F. Homer-Dixon, 'On The Threshold: Environmental Changes as Causes of Acute Conflict in: *International Security*, Vol. 16, No. 2 (fall 1991), pp. 76-116: 76.
[7] Ibid, p. 80-85.
[8] J. Waterbury, Egypt: *Burdens of the Past, Options for the Future*, Bloomington, Indiana University Press, 1978, p. 95.
[9] A. P Elhance, *Hydropolitics in the Third World. Conflict and Cooperation in the International River Basins*. Washington D.C.: Unites States Institute of Peace Press, 1995. P 66.
[10] I. H. Abdalla, 'Removing the Nubians: the Halfawis at Khasm al-Girba'. In Haggai Erlich and Isreal Gershoni (Eds.) *The Nile: Histories, Culture and Myths*. Boulder: Lynne Rienner Publishers, 2000. pp. 235-242.

In comparison, Hudson disputes the above claim and argues that resources are often a source of cooperation rather that a source of conflict, he continues by saying that water as a resource can be used to strengthen environmental security when used for economic purposes. In comparison, Bahta says that Nile water contributes to conflict indirectly[11], that the Nile waters have potential to intensify structural conflicts within society since the surrounding communities can not achieve their full potential from water.

Mageed supports the above view and adds that inequity in Nile water management including marginalization of most riparian states from using the water domestically for irrigation[12], hydro generation and farming breeds conflict. Marginalization is brought about by dominance of Egypt and Sudan while the rest of the riparian states benefit less.

Collier argues that conflicts are common in countries with weak economies and which are dependant on natural resources[13]. In this case, he notes that, government's role in legislating law and order and creating policies on natural resource exploitation determines what one can do with the environmental security. Barbour differs with Collier, his argument is that Nile riparian states should belong to institutions if they are to guarantee human security and avoid conflicts[14]. There are four institutions with organs supporting the cause for human security among the Nile riparian states, for instance, IGAD's supports food and environmental security, through Environmental Action Plan

[11] 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.

[12] Y. A. Mageed, *Control and Use of Nile Waters in the Sudan*, Khartoum: Ministry of Irrigation, 1975, p. 23.

[13] P Collier, 'Natural Resources and Conflict in Africa' *Crimes of War Project*, 1999-2004, Vol:10, No: 1, pp. 231-276: 232.

[14] K. M. Barbour, A New Approach to the Nile Water Problem, International Affairs, Vol. 33, 1957, pp. 319-330:325.

(EAP), in which IGAD urged East African economic communities to take measures to initiate the implementation of the Eastern Africa Sub Regional Environment Action for Environment Conservation.

On the other hand, East African Community Protocol on the Management of Environment and Natural Resources is a major instrument in the implementation of projects and programmes in production environmental resource production[15]. In addition COMESA member states support economic activity through efficient and sustainable utilization of natural resources, by fostering cooperation and concerted measures. The Nile Basin Initiative also (NBI) utilizes the Nile Transboundary Environmental Action and Efficient Water Use, to mitigate on environmental degradation problems[16].

So far, it is only the N.B.I that has a solid framework for environmental security, previously, the main attempt to common use of the River Nile water resources was through a state sponsored initiative known as, the River Nile Cooperative Framework Agreement (CFA) which started in 1997[17]. Cooperation on the development of the Nile is not a totally new attempt. There have been efforts deployed before by some Nile Riparian states to bring about cooperation over the Nile cooperative, the endeavors include; HYDROMET, UNDUGU and TECCONILE[18]. However, Barbour says that attempts at cooperation under these arrangements were destined to fail, because they could not win the confidence of the riparian States and get them on board[19]. For example, Ethiopia refused to be associated with such cooperation frameworks because they were

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[15] World Bank, *Nile Basin Initiative, Shared Vision Program, Regional Power Trade Project*, 2005, Part 1, 2003, World Bank report, pp. 4-6.
[16] www.nilebasin.org, accessed on 22 May 2010
[17] World Bank, Nile Basin Initiative, Shared Vision Program, Regional Power Trade Project, op, cit, p.7.
[18] R. Rangeley, et al, op, cit.
[19] K. M. Barbour, op, cit.

considered to have the sinister motive of institutionalizing the unjust status quo in the Nile Waters, as evidenced by the 1959 Agreement.

In addition, bilateral efforts of cooperation could not fair any better either. Waterbury argues that cooperative water resources management is complex in any international river basin[20], he cites the case of Nile Basin where most states are characterized by water scarcity, poverty, a long history of dispute, insecurity, rapidly growing populations and demand for water. The NBI started with a participatory process of dialogue among the riparian that resulted in their agreeing on a shared vision that stipulated how Nile riparian states can achieve sustainable socioeconomic development through the equitable utilization of, and benefit from, the common Nile Basin water resources.

The lack of an overreaching institution is expounded by Falkenmarm who argues that until the beginning of the twentieth century, cooperation programs related to the Nile water represented only the Egyptian domestic considerations[21]. In addition, Kalpakian, says that colonialism and weak political governments among riparian states blurred the issue of international cooperation in the upstream region locking out main countries that contribute waters to the river Nile from utilizing them. There was need to revise colonial agreements if future human and state security was to be guaranteed. According to Howell et al, the first stage of international riparian cooperation for Nile management was the

[20] J. Waterbury , Egypt: *Burdens of the Past, Options for the Future*, Bloomington: Indiana University Press, 1978, p. 95.
[21] M. Falkenmark, 'Global Water Issue Confronting Humanity' *Journal of Peace Research,* 1990, Vol: 27, No: 2, pp 119-142:p.122.

monitoring and the collection of data on the timing and the quantity of upstream flood waters[22].

During this stage, Egypt initiated and monitored programs on upstream portions of the river which other riparian states cooperated by consent[23]. This added to the long history of Egyptian monitoring of the Nile, as a result of its position, Egypt laid the groundwork for the completion of the first stage of international riparian cooperation in Nile management.[24]

Garretson observes that the thrust of Egyptian diplomatic efforts was to establish the belief that no upper basin state had the right to interfere with the flow of the Nile to the detriment of Egypt[25]. The main act of the first stage was the Nile Waters Agreement of 1929, in which the Sudan was allotted 4 billion cubic meters of water while Egypt was reserved for 48 billion cubic meters of water. According to Waterbury this is why the second stage of riparian cooperation began immediately after Egyptian independence[26]. After a one sided start, Abdulla says that Egypt and the Sudan created an arrangement based on the second Nile Waters Agreement of 1959, which was more equitable than the 1929 agreement[27]. In this cooperative framework Egypt built the Aswan High Dam, to preserve more water. In the Sudan, the Khashm el Girba Dam on the Atbara River and the Roseires Dam on the Blue Nile, were also constructed. Under the 1959 agreement, joint cooperation agreement was bilateral between Egypt and Sudan, this cooperation

[22] P. P. Howell, & J. A. Allen, (Eds.), *The Nile: Sharing a Scarce Resource*, Cambridge: Cambridge University Press, ,1994, pp.8-10.
[23] ibid
[24] K. W. Butzer, *Early Hydraulic Civilization in Egypt*, Chicago: University of Chicago Press, 1976 and J. Waterbury, *Hydropolitics of the Nile Valley*, op, cit, p 24.
[25] A. H. Garretson, E. D. Hayton, & C. J. Olmstead, *The Law of International Drainage Basins* New York: New York University School of Law, 1967, pp 243-247.
[26] J WaterBury, op, cit, p. 26.
[27] H. Abdulla, 'The 1959 Nile Waters Agreement in Sudanese-Egyptian Relations', *Middle East Journal*, Vol. 7, 1971, pp. 329-341:335.

framework initiated the Jonglei Canal as the inaugural project of Sudd management in 1977 between the two state[28].

Falkenmark says that during the implementation stage, the above stage was marked by a shift of interested parties from Egyptian dominance to include other interest parties[29]. A third stage of cooperation was arguably initiated by water demand considerations that were increasingly felt as a consequence of water shortages. This stage shifted interest from single domestic constituent to multiple domestic constituents[30]. However, there was a lack of a clear platform to involve other states.

Waterbury view is that, cooperation over trans-boundary waters are played out in power determined contexts[31]. Dynamic trans-boundary relations in the Nile Basin are characterized by varying intensities of coexisting cooperation among state actors. When the co existence of cooperation is recognized, it is possible to escape the assumption that trans-boundary water relations exist on a single axis from undesirable conflict to desirable cooperation.

Asymmetric power is very evident in the outcomes of trans-boundary water dynamics and the adaptation process for trans-boundary water cooperation initiatives. Ethiopia for instance appears more powerful, as most of the water originates in the Ethiopian highlands. Malin argues that, geographically, the upstream states are always in a more powerful position[32]. At second glance, however, the economic and political power of downstream Egypt becomes apparent, in part compensating for its vulnerable

[28] C. Gischler, *Water Resources in the Arab Middle East and North Africa*, Cambridge, Menas Ltd., and Alan Mackie, Jonglei Canal May Be Unifying Force for Sudan, Middle East Economic Digest 1979, pp. 6-8.
[29] M. Falkenmark, 'Global Water Issues Confronting Humanity'. *Journal of Peace Research*. 1990, Vol:27, No:2, p 119.
[30] World Bank 2005, Nile Basin Initiative, Shared Vision Program, op, cit
[31] J Waterbury, 2002, *The Nile Basin: National Determinants of Collective Action*, op, cit.
[32] Malin, ibid

downstream position. Since the inception of the Nile Basin Initiative in 1999[33], the power element has played a central role in cooperation initiatives, with down stream states dominating. To ensure continuation of cooperation, riparian states have tended to postpone critical issues and negotiate on issues that are general. Although Barston argues that this is a strategy to avoiding deadlocks in multilateral negotiations, it has however prolonged the time for realizing a cooperative agreement[34].

A World Bank report of 2005 reported that the main attempt to common use of the River Nile water resources was through a state sponsored initiative known as, the River Nile Cooperative Framework Agreement (CFA) which started in 1997[35]. After almost ten years of deliberation, the CFA submitted a draft text to the meeting of the Nile Council of Ministers for Water Affairs for their consideration in June 2007. If it was signed and ratified, the agreement would have created a permanent Nile Basin Organization and at the same time created the first comprehensive treaty of the Nile River that involves all states.

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, Mageed 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[36].

[33] J Waterbury, *The Nile Basin: National Determinants of Collective Action*, Yale University Press, New Haven, 2002, p 65.
[34] R.P Barston, Modern Diplomacy, Essex, Pearson, 1997, p. 91
[35] World Bank 2005, Nile Basin Initiative, Shared Vision Program, Regional Power Trade Project, op, cit
[36] Y. A. Mageed, Control and Use of Nile Waters in the Sudan, op, cit.

Out of the ten countries shared by the Nile River, five are among the ten poorest in the world[37]. Biswas says that their state of poverty, coupled with the alarming population explosion and environmental degradation, necessitate the development of the Nile Water resources by all riparian States. Altogether, about 300 million people share the water of the Nile, the problem of use represents an enormous potential for conflict. According to Homer-Dixon, increased competition over water resources can lead to conflict as the people affected by scarcity may start to fight. The scarcity is supply induced since water is a supply side variable[38]. The urgency for cooperation creates the need to incorporate a framework for water management and development among the riparian states.

In summary, Waterbury concludes that cooperative water resources management is complex in any international river basin[39]. In the Nile Basin, most states are characterized by water scarcity, poverty, a long history of dispute, insecurity, rapidly growing populations and demand for water.

Theoretical Framework

This study research will use the liberalism theory to analyze issues. Liberalism is traced back to the end of the Second World War and the fourteen points of Woodrow Wilson. Wilson suggested among other points that states should engage in open covenants, that there should be absolute freedom of navigation in the seas, shared territorial waters and other global commons, in addition, there should be adequate

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[37] Biswas A K 2000 *Water for urban areas of the developing world in the twenty-first century* in Uitto J I and Biswas A K eds Water for urban areas: challenges and perspectives United Nations University Press, Tokyo, pp 19-23

[38] Thomas H Dixon, 1999. *Environment, Scarcity and Violence*, Princeton University Press, Princeton, New Jersey, p 14.

[39] John Waterbury. Egypt: *Burdens of the Past, Options for the Future* (Bloomington: Indiana University Press, 1978), p. 95.

guarantee that national armaments should be reduced, and there should an open minded adjustment of all colonial claims.

The main assumption of liberalism rose from the need to understand the causes and causes of World War One, it is aim was to end all other future wars, liberalism views wars as unnecessary because they don't the objectives. Liberalism argues that wars are fought over misunderstandings and personal issues, as such war is not a rational tool of foreign policy. Liberalism advocates for the promotion of peace, peace can be achieved through the following means.

States should join international organizations or institutions in order to regulate international anarchy, the assumption here is that organizations or institutions provide certain norms and regulations which are enshrined for instance in charters. It puts emphasize on collective security because a security community will accept responsibility for the security of member states.

Liberalism further argues that the state is not in anarchy, the populations are not the problem but the abstract state which is in competition to survive, remain sovereign and gain security. It also says that state goals can be compatible with each other in order to have joint gains, corporation is often blocked by misperception, misperception, lack of understanding and political structures which create antagonism or false conflicts. They further believe that when there is lack of individual liberty within a state, it creates false conflicts. Finally, liberalism theory puts emphasize in making the world more transparent, eliminating institutional norms that restrict individual liberties and focus on absolute gains.

Methodology

This study used primary and secondary data to collect information used in this analysis. Primary data was pursued in two categories, through unpublished primary data and published primary data. Unpublished primary information was obtained and included specialized documents from targeted organizations which in this study were Nile Basin Discourse (NBD), Nile Basin Society (NBS), Nile Basin University Forum, Nile Basin Initiative (NBI), International Union for Conservation of Nature (IUCN), United Nations Environmental Programme (UNEP) and the Institute for Security Studies (ISS).

Information from NBD was used to examine the general roles of non state actors in the Nile Basin. The principal researcher interviewed the director of NBD, the information obtained was used to analyze the context under which non state actors operate, their impact and general plans in the management of Nile Basin. Unpublished documents from NBD were used to as support material to build up on the literature of track two actors. In NBS, the principal researcher interviewed the Head of Environmental Planning, information obtained from him was used to identify environmental security attempts made by non state actors and how information gathering and sharing on environmental resources can enhance environmental security.

On the other hand, information from Nile Basin University Forum was used to examine the role of education in environmental issues, the contribution of learning institutions in environmental issues, research and the extent of participation of institutes of higher learning in contributing to the understanding of environmental issues. The information was also used in drawing justification for academic research, the need for

research on environmental issues is important if states are to improve the environmental security situation among Nile Riparian states.

The principal researcher also interviewed the head of NBI Kenya, information obtained from her was important to gauge the ability of state actors in admitting non state actors in the Nile basin and also find out the extent to which state actors have participated in ensuring environmental security, this was important because unless it is understood what role track one actors play in human security, it can challenging to find out the contribution of track two actors in environmental security in the Nile basin.

The information from IUCN was important to examine the effectiveness of problem solving workshops in the Nile Basin case. IUCN together with Overseas Development Institute (ODI) facilitate workshops organized by civil societies and states among the Nile riparian states. To understand the effectiveness of problem solving workshops, it was important to find out from the organizations that fund civil societies. Information obtained from this two was used to develop a basis for knowledge and in making a critical analysis.

United Nations Environmental Programme is arguably the general overseer of environmental issues in the globe. Information was sought from two environmental experts: an expert in environmental governance and an expert in water law governance. Information from the environmental governance expert was important to examine the international dimension of shared water resources, environmental security and environmental threats. This information was also important to understand the role of non state actors in other parts of the world where states share water systems. It was also important to understand the impact of environmental security in the international system.

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This was important because, by understanding the prevailing situation in other parts of the world, would play a role and ensure that the principal researcher does not repeat information that has already been researched and therefore can make a contribution to the creation of new information. In addition, a senior researcher on Environmental Diplomacy from ISS was interviewed, ISS is a research centre on security issues with a department that is dedicated to environmental security in the horn of Africa, hence, information obtained from here was important to identifying the main issues of environmental threats, this helped in building of the literature in chapter four and chapter five.

Most primary published data used in this study was obtained from the above organizations, however additional information was obtained from newspapers, websites, environmental magazines, panel papers and minutes of meetings on environmental issues. This information was used to strengthen on issues identified and justify the research study.

Finally, books and journals on environment maters were used to build this literature review. They were used as a guide to provide principals of environmental security, track two diplomacy and the Nile Basin, information from this secondary sources helped to put issues into context in the critical analysis chapter.

Hypothesis

1. Cooperative engagement of track two actors in the Nile Basin can contribute and enhance environmental security. Track two actors have financial and resource

pool to aid the process of realizing not only a basin wide agreement but securing environmental security.

2. Inclusion of all Track Two actors has a strong implication since it ties states not only on one front like the Nile river but also connects states through other means, which imply that dependence on each other, compliments the overall urge to cooperate and secure the environment.

3. Nile basin states lack a comprehensive environmental security strategy to oversee the use and utilization of resources in the Nile basin.

Chapter Outline

Chapter one introduced the topic of research study the statement of the problem, justification, theoretical framework, literature review, hypotheses and the methodology of the study.

Chapter two examined the concept on security and examined the development of security studies in the international system. It analyzed the concept of human security and from it derived the aspect of environmental security.

Chapter three discussed diplomacy in the international system, it analyzed the types of diplomacy and actors of diplomacy. Then finally developed an inventory of track two actors in the Nile basin

Chapter four examined the case study and environmental security in the Nile Basin, this chapter utilized primary data to create a basis for this study and put the topic into perspective.

Chapter five is a scholarly chapter, it pulls issues identified from chapter one to chapter four together then using the theoretical frame work, analyses them to create new

knowledge, at the end, it examines if the hypothesis identified in chapter one are achieved.

Chapter six is the conclusions and reflection on the study.

CHAPTER TWO

Security, Human Security and Environmental Security

Chapter one analyzed literature review on environment security and the types of actors that are involved in the Nile basin. The chapter suggested in the chapter outline that chapter two will tackle security. Therefore, this chapter will introduce the general concept of security and discuss its development in the international system. Security will be examined from the Cold War when issues of security revolved around physical security of states, then modern understanding of security which was in the period of 1970's when issues of environmental security emerged, non physical security in the1980's and finally, human security in the 1990's.

Introduction

Since the emergence and defeat of liberalism in the 1920's, the realist school of thought has been dominant in explaining issues in international relations[1]. In realism, security is mainly a zero sum game in which a gain for one state is a loss for another. Barston defines security as the level of tension or violence and the corresponding extent to which actors interest can be accommodated through diplomacy, without recourse to violence on the basis of mediation, rule and norm setting[2]. In contemporary international system, security issues can be analyzed from three perspectives, these three perspectives correspond to the three phases of the development of security. The perspectives are: the international system, the nation state and the individual view. At the level of the international system, security is thought of in terms of the security of all states. At the national level, security is considered in terms of responses to critical threats of a military

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[1] N. P. Gleditsch, *Environmental Change, Security, and Conflict*, p. 53.
[2] R.P Barston, 1988, *Modern Diplomacy*, Longman, London, p. 184.

kind, here, diplomacy is used as the state craft of force which employs actions such as deterring aggressors, building up coalitions, threatening or warning opponents and seeking international support of legitimacy for the use or control of force[3]. At the individual level, security 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 security considerations.

The Concept of Security

The term security was derived from Latin word *securus* which means safe. In the classical sense security, refers to calm and freedom of care, or the absence of anxiety upon which life depends. Security can be objective or subjective, in an objective sense security measures the absence of threats while in a subjective sense security means the absence of fear that national interests will be attacked[4]. National interests are though of in terms of national security, national security according to Buzan, focuses on the nation, a nation is a group of people who either live in a definite geographical location or are dispersed but share a common language, culture, and share common historical experiences[5].

National security can therefore be described as a condition or feeling of being secure or safe, it also refers to universal aspirations to live in the expectation that life and physical integrity will not be threatened by any other person, group or society[6].

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[3] R. H. Ullmann, *"Redefining Security,"* International Security, Vol. 8, No. 1 (Summer 1983), pp. 129-131:130-135.

[4] H. J Morgenthau, The Problem of the National Interest, in: Politics in the Twentieth Century University of Chicago Press: Chicago, 1971, pp. 204-237.

[5] Buzan B, 1983, *People, State and Fear: National Security Problem in International Relations,* Prentice Hall, Hertfordshire, p. 48.

[6] Ibid, p.50.

For analytical considerations, the term security will be defined in this study as an attribute of the state and absence of military conflict in the international system. Secondly, security is seen as a public good which provides benefits to all members of a nation as soon as it is made available to any one person, such a good is collectively consumed by everyone in a nation, and it's impossible to charge for its use; third, security is used in a broader sense to refer ability of individuals to feel protected from internal threats that emanate from and within their state[7]. Security studies define security as a speech act that takes politics beyond the established rules of the game and places the issues either as a special kind of politics or above politics. Security studies conceptualize security as a structured field in which some actors are placed in positions of power by virtue of being generally accepted as voices of security or by having power to define security.

The conceptualization of security has been shaped by a history of wars and alliances between states, the various security conceptualizations used are underpinned by the emphasis placed on the unit or group under consideration. Here, the study in the development of security can be traced back to the Cold War period, since then, it has arguably evolved through three periods.

Cold War Security

The Cold War concept of security borrowed its core thinking from the realist school of international relations. The realist school argues that the international system is anarchical and determined by power. In the Cold War period notions of security were based on the use of force to preserve important state interests based on realism or power

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[7] R. H. Ullmann, *"Redefining Security,* op, cit.

politics[8]. Power in this context was described as the ability to get another actor to do what it will not otherwise have done or to not do what it would have otherwise done. Here, states were the main actors, since they are the ones that can wield power and had potential to balance. The notion of security in the post war period was closely related to the threat or use of violence; hence military means were regarded as central to the provision of security[9]. During the Cold War, security was considered to be about the use of military force. Military security was an attribute of relations of a state, a region or a grouping of states with other state(s). Security was viewed as an absence of threat or a situation in which occurrence of consequences of that threat could be either.

Cold War security centers on military measures to protect the sovereignty and interest of a state and physical survival of a state[10]. National security symbolism was largely a product of the cold war, its persuasiveness was increased by the realist view that national security is the primary national goal and that in international politics, security threats are permanent. Security is the protection of states boundaries from encroachment by other states, according to the realist view this physical value is so basic that no other goals can be pursued in its absence. The concept of national interest is the lynchpin of the traditional study of security. To protect national interests, states created national security strategies.

Issues of security in the Cold War period concentrated on the first generation of human rights, first generation rights included political and civil rights of people. Human

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[8] J. S. Goldstein, *International Relations,* New York, 2004, p.7.
[9] M. Renner, 'State of the World 2005: Redefining Security', in M. Mwagiru and O Oculi (eds)*Rethinking Global Security: An African Perspective?* Heinrich Boll Foundation, Regional Office East and Horn of Africa, Nairobi, pp 1-11.
[10] B Buzan O.Wæver & J. de Wilde, Security, *A New Framework for Analysis*, Lynne Rienner Publishers: Boulder-London, 1998, p 7.

rights issues were limited to boundaries of states and regarded as the rights of states. States at this time could abuse rights of people and not be considered as a major issue. The concept of collective security was introduced to preserve and sustain rights of individuals[11]. The United Nations charter envisaged collective action to prevent or limit the action of potential aggressors through military and other means. According to Morgenthau, security studies were policy oriented and focused on rational choice theory, technology, and the improvement of weaponry[12]. However, the start of the cold War and the recognition of the limits of rational choice theory brought the post war period to an end.

Security in the 1970's

As the Cold War sense of security slackened, the intellectual ambiguity of national security became more pronounced. New definitions of security began to gain dominance towards the end of the Cold War, this definition are based on liberalist and pluralism concepts of international relations, the new conceptualization of national security broaden the scope of threats beyond the military limits and includes many non military threats to national security. The issue of environmental security emerged among the first of the threats that confront national security.

The new conceptualization of security argues that the military threat to national security is only one of the many threats that governments must now address. The new threats derive directly or indirectly from the rapidly changing relationship between humanity and the earths changing natural systems and resources. The unfolding stresses in this relationships initially manifest themselves as ecological stresses and resource

[11] R.P Barston, op, cit, p. 187.
[12] H.J. Morgenthau, *Politics Among Nations*, 5 edition. New York: Knopf, 1978, p. 4.

scarcities, later they translate into economic stresses, inflation, conflict, unemployment and competition, ultimately they pose challenge to a states security[13].

The period of 1970's marked a paradigm shift on a number of issues in the international system, it introduced new actors who participated in agenda setting, new dimensions of security and perspectives of security[14].En vironmental issues were the first to be considered due to the importance of the environment. The field grew in new directions, including environmental security, societal security, and the study of migration, pandemics, terrorism, human security, and the trafficking of both people and drugs.

The expansion of the concept of security into non military issues led to a reconsideration of the political structures through which security can be achieved[15].W ith the expansion of the concept of security issues, security threats were also perceived in broader terms. While threats to the territory of the state are primarily identified in military terms, societies and individuals face a multitude of dangers ranging from the inadequacies of political and social structures, to environmental degradation.

Security in 1990's and Human Security

The roots of human security can be traced to the end of the cold war, for instance during the debate over the disarmament-development nexus that took place in various United Nations forums in response to the cold war arms race. The emerging concept of human security is based on individual security. This concept challenges the traditional notion of security by putting human beings in place of the state as the proper referent for

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[13] J.T. Mathews, ,'Redefining Security', *Foreign Affairs*, Spring 1989 Vol:62, No: 2, pp.135-162: 140
[14] M. Mwagiru, 'Africa in International Security Agenda Setting', in *Human Security, Setting the Agenda for the Horn of Africa*, Africa Peace Forum, Nairobi, p.1
[15] ibid

security[16]. According to the UNDP report, this notion contends that people centered security necessitates national, regional and global stability. The term human security can be traced back to the 1994 Human Development Report of the United Nations Development Programme (UNDP)[17]. The UNDP report considered issues that were less visible such as job security, health security and environmental security as central to re-conceptualization of security. According to United Nations Development Programe, the term human security implies, safety from chronic threats, such as hunger disease, and repression, on the other hand, it implies protection from harmful disruptions in the patterns of daily life whether in homes or jobs[18].

Human security calls for a shift in security thinking from state security to human security of the people, which includes both individuals and communities. The debate about human security concerns the separation of direct physical violence from structural violence[19]. Physical violence demands security for physical state security while structural violence exists when resources are unequally shared between members of a society[20].

The UNDP report listed seven separate components of human security namely; economic security (assured basic income), food security (physical and economic access to food), health security (relative freedom from disease and infection), environmental security (access to sanitary water supply, clean air and a non-degraded land system),

[16] United Nations Development Programme, *Human Development Report*, New York: Oxford University Press, 1994, p. 22.

[17] United Nations Development Programme, *Human Development Report 1994*, New York: United Nations Development Programme 1994, p.15.

[18] United Nations, Human Development Report 1994; Sverre Lodgaard, 'Human security: concept and operationalization,' Paper presented to the Expert Seminar on Human Rights and Peace 2000, Palais Wilson, Geneva 8-9 December 2000, pd/hr/u.1, United Nations/Naciones Unidas, University of Peace, Universidad Para La Paz.

[19] T. Homer-Dixon, 1994, "Environmental Scarcities and Violent Conflict: Evidence from Cases." *International Security*, Vol:1, No:9, pp.5- 37:20.

[20] A. Suhrke, 'Human security and the interests of states/ Security Dialogue 3o(September 1999), pp.176-265:76.

personal security (security from physical violence and threats), community security (security of cultural identity), and political security (protection of basic human rights and freedoms)[21].

Although the above list of human security issues was thought of as being too broad, defenders of the report believed that a broad definition was both necessary and desirable given the wider constituency of the United Nations. This is based on the argument that human security symbolizes a multi dimensional and holistic approach to security that is based on the conviction that, problems such as human rights, development and insecurity in conflict zones are interrelated[22].

Waltz says that for long, the concept of security was shaped by the potential for conflict between states[23]. However, the broadening of security and use of the individual as the level of analysis shifted the attention of security from state to human oriented issues. For most people today, a feeling of insecurity arises more from worries about daily life than from the fear of a devastating world event. Job security, income security, health security and environmental security are the emerging concerns of humanity and security. Environmental security has become critical in recent years, in particular on issues addressing ecological degradation and natural resource scarcity. Human security is relevant to people everywhere, although the intensity of the threats may differ from one place to another the potential of environmental threats have equal magnitude to individuals everywhere.

[21] United Nations Development Programme, 1994, op, cit
[22] ibid
[23] K. N. Waltz, *Theory of international politics*, 1979, op, cit.

Human security compliments state security by being people centered, in addition, human security addresses threats that traditionally were not considered as state security threats, and it also furthers human development and enhances protection of human rights[24]. As the state continues to have the fundamental responsibility to security, security challenges have become complex and new actors emerged to compliment states, a paradigm shift from state centric security broadens the focus from human security to environmental security[25].

Environmental Security

Environmental security became a common security issue due to the recognition that the environment provides the fundamental life support system[26]. Environmental security became a concept during the 1992 United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro[27]. The concept of environmental security considers the environment *per se* in assessing the consequences of policy decisions. As a consequence of the Rio process, Foreign Affairs and other ministries, especially those dealing with environmental affairs, defense and finance, were no longer able to dismiss environmental issues as irrelevant in the context of more strategic aspects of national policy as well as defining national interests. Brunee et al says that at this point, it was established that the environment and its protection should be a shared responsibility between actors of diplomacy[28].

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[24] R. Mudida, *The Security-Development Nexus: A structural Violence and Human Needs Approach,* in K. Bruchmann et al: From Conflict to Regional Stability, Linking Security and Development, 2008, p. 12.

[25] R Brown, 'Information Technology and the Transformation of Diplomacy', *Knowledge, Technology and Policy,* Summer, Vol 18,No.2, 2004, p 344-386:345.

[26] Ho-Won Jeong, op, cit.

[27] F. W Frey, The Political Context of Conflict and Cooperation Over International River Basins. *Water International.* Vol:18: No:54, p.1-68:5-8.

[28] J. Brunnee and S. J. Toope, 'Environmental Security and Freshwater Resources: Ecosystem Regime Building', *The American Journal of International Law,* Vol. 91, No. 1 (January 1997), pp. 31-54:32.

The concept of environmental security draws its inspiration from the World Charter for Nature, in its preamble, the charter says that 'nature shall be respected, that living resources shall not be utilized in excess of their natural capacity for regeneration; that the productivity of soils shall be maintained or enhanced; that non renewable resources shall be exploited with restraint; that nature shall be secured against degradation caused by warfare or other hostile activities; and that military activities which damage nature shall be avoided[29].

From the above, concept of environmental security can be derived and defined as the intersection of environmental and national security considerations at a national policy level. Environmental security refers to the prevention or management of conflict over scarce or degraded resources to ensure that people who depend on the resources utilize them mutually for collective benefit[30]. Ullman defines environmental security as any action or sequence of events that threatens drastically and over a relatively brief span of time to degrade the quality of life for the inhabitants of a state or threatens significantly to narrow the policy choices available to the government of a state or to the private, non governmental entities within the state[31]. In summary, environmental security refers to the maintenance or re establishment of environmental balance between states to preserve and sustain human needs.

Further still, according to Gleditsch the concept of environmental security may be understood as a result of two important trends in the international system. The breakdown of the bipolar geopolitical structure that characterized the Cold War and the

[29] United Nations Development Programme, 1994, Human Development Report, op, cit.
[30] R.P Barston, *Modern Diplomacy*, Essex, Pearson, 1997, p. 192
[31] R. Ulman, *Redefining Security*, International Security, 1983, p. 133

shift of environment issues from social issues to political and national security issues[32]. The second trend is of importance to this study research. Institutionally, the international system began to recognize that the scale of human economic activity was affecting a number of basic global and regional biological systems. Buzan *et al* argue that the link between security and environment is established at the point that environmental degradation is a severe threat to human security and all life on earth.

Homer-Dixon says that environmental issues started to gain prominence with the realization that a secure environment is a prerequisite for sustainable development[33]. Homer-Dixon defines environmental security as the protection of the people from environmental threats and threats of an environmental origin, he adds that environmental problems qualify to be security issues when the state is forced to respond with extraordinary measures to curb or regulate environmental induced threats[34]. The social element of environmental security is that, when human induced activities like pollution, deforestation and dumping of waste contributes to deterioration of the environment, then environmental security is challenged[35].

Environmental Security Issues

The first major global conference to discuss environmental issues was held in Stockholm in 1972. Prior to that, environmental matters were handled through limited agreements such as the 1929 and 1959 Nile Treaty agreements. Most of these agreements concluded before 1972 contained only two or three of the necessary parts for effective

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[32] N. P. Gleditsch, *Environemntal Change, Security, and Conflict*, p. 54.
[33] T.Homer-Dixon T, *The myth of global water wars*, Forum International Committee of the Red Cross, Geneva pp 10-13.
[34] T.F. Homer-Dixon, On The Threshold: Environmental Changes as Causes of Acute Conflict in: International Security, Vol. 16, No. 2 (fall 1991), p. 6-76:5-15.
[35] Ibid, p.20.

conservation and management, regulation and enforcement provisions and not scientific advice or institutional implementation[36]. From the environmental perspective, the critical pressure to evolve environmental security as a policy system derives from the fundamental recognition that environmental issues can no longer be thought of as secondary, but as integral components of industrial, social, and economic systems[37].

The environment affects security when degradation threatens the livelihood of people. Conway identifies two categories of environmental threats, the first category are threats that emerge from structural use, they include, diversion of resources, pollution, land reclamation of wetlands and imbalance between water withdraw and water use[38]. The second category of threats that emerge from socioeconomic issues include: prevailing levels of poverty, disease, hunger, homelessness and unemployment which leave people angry and eager to maximize the use of water resources for their own gain. When the two categories exist, exhaustion of environmental resources has potential to explode to an interstate competition. Shuman concludes that the above links embrace to threaten environmental security in levels that also threaten people's security[39]. Within the Nile basin desertification, drought, environmental degradation and scarcity of water have over the last two decades displaced pastoralist communities who dot areas around Nile basin and forced them to move as environmental refugees[40].

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[36] R.P Barston, Environmental Diplomacy, op, cit, p 150.

[37] Ho-Won Jeong, 2000, *Peace and Conflict Studies, op, cit,* pp 95-99.

[38] D Conway, 'From Headwater Tributaries to International River: Observing and Adapting to Climate Variability and Change in The Nile Basin', in *Global Environment Change,* Amsterdam, Elsevier, 2005, Vol:19, pp.76-125:110-112

[39] M, H. Shuman, and H, Harvey, *Security Without War, A Post War Foreign Policy,* Oxford, WestView Press, 1993, p 25.

[40] I. Farah, 2008, ' Human Security and Livelihood of Pastoral Communities in the Horn of Africa' in *Human Secuirty: Setting the Agenda for the Horn of Africa,* edited by M. Mwagiru, Africa Peace Forum, p 184.

Most Nile riparian states are undermined by acute environmental degradation, compounded by an ecological system made viable by a cyclical drought and constant dry spells[41]. As a result, a growing scarcity of fresh water is evident. In addition, the population in the Nile Basin is approximated at 300 million and projected to increase by an additional 50 million by the year 2030[42], this creates the need to find ways to satisfy human demand for water while at the same time protecting the life support functions of fresh water systems.

The function of water as a prerequiste for life on one hand and its use as a resource or commodity for development on the other are increasingly on a collision course. For instance, Ethiopia accounts for 86 percent of the total water to the Nile basin but it uses less that one percent for irrigation and hydro electric power[43]. Ironically drought and famine have plagued the country for decades, efforts by the state to curb it have yielded no solid results, it can be argued that, the potential for Ethiopia to provide food security for its people lies in its ability to manage the environment. Collier argues that unequal management of water inevitably brings into play the competing priorities of different uses and users, these competing priorities have potential to not only generate to regional conflicts between riparian states but also act as an incentive to commit environmental crimes[44].

An environment crime is a grave act against the environment, which results in the infringement of this statutory right of people to enjoy their environment and denies

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[41] A. K. Biswas *Water for Urban a\Areas of the Developing World in the Twenty-first century* in Uitto J I and Biswas A K eds Water for urban areas: challenges and perspectives United Nations University Press, Tokyo, 2000, pp 19-23
[42] ibid
[43] P Collier, 'Natural Resources and Conflict in Africa' *Crimes of War Project*, 1999-2004, Vol 10, No: 1, 2000, pp.176- 231:179.
[44] Ibid, p. 220.

citizens the rights to a clean and healthy environment[45]. For the act to qualify as a crime, it must violate some laid down law, and should also be punishable by law which is either national or international.

Generally, environmental security can be infringed either knowingly or unknowingly[46]. Environmental security is fuelled by two factors, first, the Nile waters are shared by many states and this involves many parties with different interests in the water use[47]. Secondly, the fact that some states are failed states as Somalia, and some are financially weak like Ethiopia and yet some have weak coordination mechanisms as Sudan provides fertile opportunity for infringing environmental insecurity.

Traditionally, international law considered environmental degradation as legally relevant only when it constituted interference with a states sovereign interest[48]. To date, there are two customary laws that govern the laws guiding transboundary water basins, these laws emerged from the Helsinki rules governing sharing of water resources. The first set of Helsinki laws says that, a states sovereign right to exploit its natural resources is limited only by the obligation not to cause significant environmental harm in other states. The other is that riparian states must equitably share the beneficial uses of fresh water resources straddling their territories[49].

The link between environmental threats and environmental security is founded on the basis that, environmental threats contribute to environmental degradation; this affects the quantity of environmental resources and consequently limits sust

[45] D. A. Mwturabani, *Nature and Extent of Environmental Crime in Kenya*, Institute for Security Studies, Nairobi, 2009, p 4

[46] T. Homer-Dixon, "*Environmental Scarcities and Violent Conflict: Evidence from Cases.*" 1994, op, cit.

[47] J. Brunnee & S. J. Toope, 'Environmental Security and Freshwater Resources: Ecosystem Regime Building, *The American Journal of International Law*, Vol. 91, No. 1 (Jan., 1997), pp. 26-59: 27-29.

[48] H Haftendom, 'Water and international conflict'. Third World Quarterly, Vol:21, No:1, 2000, pp 51-68.

[49] H. Garretson, E. D. Hayton, and C. J. Olmstead, *The Law of International Drainage Basins*, New York, New York University School of Law, 1967, p. 22.

ainable development. According to Gleditsh, the leading environmental threat in water basins is direct water pollution[50]. Within the Nile basin, water pollution occurs when, municipalities, companies and individuals wash along river shores or empty their effluent directly into rivers that eventually feed to Nile River basin.

In addition, multinational companies, states and individual developers contribute to environmental degradation through reclamation of wetlands for commercial development. Although wetlands are protected by international law, they are reclaimed for commercial purposes like agriculture, construction and development, this type of degradation is rampant in Kampala Uganda where commercial buildings occupy 65 percent of wetland areas[51].

Urban areas along the Nile river like Jinja town, plastic wastes such as polythene carriers, plastic bags, packaging materials and plastic bottles are haphazardly disposed of in rivers that feed into the main Nile, hence polluting water and the general environment[52]. Further more, uncontrolled dumping of plastic wastes blocks water drainage systems and when buried, they block the natural supply of air and water to the soil.

In Tanzania, the *State of the environment report* of 2009[53], listed a number of dangerous ways in which industrial, agriculture, plastic and electronic waste are disposed off. The report said that, many industries in Tanzania lack waste treatment facilities, hence, untreated or poorly treated effluent is discharged into water bodies, and in addition, there was no systematic monitoring or quantification of industrial waste. For

[50] N. P. Gleditsh, op, cit.
[51] ibid
[52] M. Woube, *Environmental Degradation along the Blue Nile River Basin*, Vol. 23, No. 8, December 1994, pp. 519-520.
[53] United Republic of Tanzania, *State of the Environment Report*, 2009, p. 128.

instance, Karibu Textile Mills, which is the largest manufacture of Khanga, kitenge and bed sheets, lacks a water a treatment plant, yet the company releases about two million liters of waste water a day. The water which is drained into Kizinga River is said to contain dangerous chemicals that have led to the disappearance of some animals and plant species in the river.

Gleditsch identifies three concerns that should be included in security to capture environmental concerns. First is to prevent war and armed conflict resulting from resource scarcity and environmental degradation, second is to prevent disasters other than war resulting from such scarcity and degradation and third is to prevent the erosion of the earths carrying capacity resulting in the loss of environmental sustainability in the future[54].

To prevent war and armed conflict resulting from resource scarcity and environmental degradation: it can be said that, at the local level, agriculture is the mainstay of many communities living on the Nile basin. Availability of irrigation water enables production of food for house hold nutrition in rural and semi urban areas. In addition, the economics involved in selling of produce increases employment opportunities which have direct benefits for human security. Beside its economic value as a major source of income, agriculture has always represented prosperity, for instance, food security and work opportunity for most Nile riparian states.

The economic well being of societies exerts the greatest demand on the Nile basin waters and environmental resources. The major economic role of water is its relationship with agriculture where by food security issues and national economic performance is dependant of availability of water. However, some crops like rice and

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[54] P. N. Gleditsch, op, cit.

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sugar consume huge quantities of water, which has contributed to a reduction in water levels. Most upper Nile states like Uganda, Tanzania, Sudan and Kenya continue to grow rice and sugar cane near water catchments regions. This exposes other riparian states on the edge of water scarcity, water is a none increasing resource, annual discharge from Nile water is constant at 55.5 million cubic meters and displays all characteristics to dwindle down if the trend continues[55].

The high water consumption of rice and sugar cane, combined with the calculation of value added per cubic meter of water explain Egypt's policy of trying to minimize rice and sugar cane production. In Egypt the agricultural sector is responsible for 86% of Egypt's water quota withdrawn from the Nile. But due to these agricultural activities in the upper Nile, the actual production of food in the downstream states has not been sufficient. But uncontrolled activities among the upper Nile states have strained the water resources further and exposed down stream states to import more food to cater for the increasing populations. Although this can be a positive development which can boost trade, if for instance Egypt buys rice and sugar from upper Nile states, it is also a recipe for conflict, for instance if the water levels continue decreasing and Egypt demands same share of water flow[56].

Climate change affects water availability as a result of warming surface temperatures in the Lake Victoria[57]. Orindi argues that in Tanzania, high temperatures and less rainfall has been predicted to affect the annual flow of the Pangani and Ruvu

[55] C. Gischler, 'Water Resources in the Arab Middle East and North Africa: Jonglei Canal May Be Unifying Force for Sudan', *Middle East Economic Digest*, 1979, pp. 6-8.
[56] Y. A. Mageed, *Control and Use of Nile Waters in the Sudan, Khartoum*: Ministry of Irrigation, 1975, p. 23.
[57] G. Guariso, D. Whittington, B. S. Zikri, & K. H. Mancy, *Nile Water for Sinai: Framework for Analysis, Water Quality Studies on the Nile River and Lake Nasser*, Cairo: Egyptian Academy of Scientific Research and Technology; and M. Samaha Abdel Hady, The Egyptian Water Master Plan, Water Supply and Management, Vol. 3, 1979, pp. 201-254:221.

rivers by 6 to 9 percent and 10 percent respectively[58]. The Pangani basin is an agriculturally productive area and provides a catchments area for water that feeds into the wider Nile basin, climate change hence threatens the productivity of hydropower, irrigation and water for drinking. In addition climate change has had a severe impact on the fluctuations in Lake Victoria water levels.

The shortage of water in the Nile basin is as a result in the frequency, intensity and predictability of rainfall in the region that partly comes about as a result of climate change[59]. The Intergovernmental Panel on Climate Change (IPCC) predicts that warmer temperatures in the region will lead to a 5 to 20 percent increase in rainfall. However, it notes that these changes are likely to be irregular and unpredictable and will not be uniform throughout the region. This unreliability will affect water supply for domestic consumption and industrial use.

Though climate change will affect the whole of Nile basin, effects will vary from region to region. Climate change is expected to accelerate desertification and gradual decrease in forest cover. In the downstream region of the Nile rainfall is predicted to decrease, resulting in soil degradation and an increasing occurrence of dust storms. In North east of the Nile basin and parts of Kenya, there will be more intense dry periods and shorter wet seasons which will cause water shortages. In the low riparian states of Tanzania, D.R.C, Rwanda, Burundi and Congo, agricultural production will decline. The staple food of maize in the region is highly susceptible to drought and will often fail. In

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[58] V. Orindi & L. A Murray, 2005, *Adapting to Climate Change in East Africa: A Strategic Approach*, Gatekeepers Seres, London, IIED, p. 117.
[59] M. Falkenmark, 'Global Water Issue Confronting Humanity' *Journal of Peace Research*, Vol: 27, No: 2, 1990, p.82-119:85-89.

conclusion, changes in climate are expected to reduce food supply and hence intensify environmental crime and security in the region[60].

Finally, the concept of security is used in this study to refer to threats of environmental degradation. In traditional setting, security refers to the prevention or management of conflict over scarce or degraded resources. Hence security referred to here is the maintenance or re establishment of ecological balance. In conclusion, the importance of understanding the concept of environmental security within the Nile Basin is that, it permits Track Two actors of diplomacy to effectively address the root cause of conflict without reinforcing the already prevalent perception of environmental degradation as matters of purely national concern, there is also need for highlighting common concerns that can help to counterbalance the preoccupation with competing state interests.

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[60] A. Dinar, 'Development Group of the World Bank', 2007, *Climate Change and Agriculture in Africa*, p. 2-4.

Chapter Three

Track Two Diplomacy in the Nile Basin

Introduction

This chapter will start by introducing the general concept of diplomacy, and examine the main types of diplomacy. In this study the types which will be examined are track one, track two and track one and half. The main concern of this study is on track two diplomacy, therefore, the chapter will analyze the concept of track two diplomacy and also conduct an in-depth analysis of track two diplomacy. Finally, to put this chapter into context, an inventory list of track two actors involved in the Nile basin and their role in regard to environmental will be discussed.

Generally, diplomacy implies the use of skill or tact in managing communication and relationship between nations or groups of people, in this sense, diplomacy can only function where there are communities of people who exist independently of each other, and have to rely on designated representatives if they want to communicate without recourse to use of force[1]. Force is used here explicitly to imply that, before diplomacy was adopted as a means of communication, relations between sates were conducted or based on crude and raw power. Power was a preserve of states and this meant that, it was only states that could engage in international relations. Power was also used to achieve the national interests of states, this means that states with more power would achieve more interests. However because the cost of wars is huge, there was need for states to adopt non physical means to achieve their national interests, it is on this basis that diplomacy came to being.

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[1] D. Kappeler, M. Mwagiru, J. Odera, *Diplomacy: The Concept, Actors, Organs, Rules and Process*, Institute of Diplomacy and International Studies, University of Nairobi, 1991, p.2

Mwagiru et al define diplomacy as the conduct of international relations by non violent means[2], Barston takes the same view but adds that diplomacy is concerned with the management of relations between states and between states and other actors[3]. These two definitions arguably draw their inspiration from the period before and after the Peace of Westphalia in 1648 when the conduct of relation between states was determined by power and balance of power among states. As Barston says the conduct of international relations is not limited to relations between sovereign states but also relations involving non state actors and international organizations. Barston further observes that the prominent role played by non-state actors increases awareness by state actors of the need to incorporate other actors and increase efficiency, reduce complexity and severity of transboundary conflicts[4]. On the same breath, Mwagiru et al adds that some non sates actors are prominent in the conduct of international relations to the extent that their roles define important elements of modern day diplomacy. These roles include; management of inter state relations, information gathering, communication and international negotiation.

Although states have traditionally dominated the conduct of diplomacy, non state and individual actors compliment state activities but have in no way substituted them especially in the field of conflict management[5]. There are three types of actors, states, non state and individual actors. State actors are referred to as track one actors, non state actors are referred to as track two actors while individuals are referred to as track one and half actors. The three groups of actors play varying roles in the conduct of modern day diplomacy and in particular in conflict management. To put this study theme

[2] Ibid, p.5
[3] R.P Barston, Modern Diplomacy, Third Edition, 2007, Pearson Education, p.1.
[4] Ibid, p.206.
[5] R. O. Keohane, & J. S. Nye, Jr. "Introduction." In: Governance in a Globalizing World, Joseph S. Nye, Jr and John D. Donahue, (Eds). Washington, DC: Brookings Institution, 2000, pp.1–6.

in context, this study will analyze the three types of actors mentioned above and their rules and process in diplomacy.

Track One Actors

The term track one, or official diplomacy, is used to refer to peacemaking activities conducted by officially appointed people for instance diplomats, governmental agencies, diplomatic and defense organizations, and inter-governmental organizations[6]. Track one diplomacy is usually conducted by properly appointed and empowered diplomats who meet openly at properly appointed venues and interact with each other according to established practices and properly adopted rules of procedure[7]. Track one diplomacy focuses on states and international organizations as actors, international organizations are not sovereign entities, they derive their personality from member states such as the United Nations (U.N) or African Union (A.U). Track one diplomacy is therefore practiced by states and international organizations or actors that represent them, the definitive description feature for track one actors is that it is guided by both legal rules and practices, and also involves formal operating procedures which leads to formalized relationships.

Track one diplomacy in conflict management is oriented to the realist thinking of power and manipulation. Power and manipulation in the realist perspective bargains for a zero-sum outcome, the problem with a zero-sum approach in conflict management is that it often leads to settlement of conflicts rather that resolution of conflicts. Mwagiru notes that this is so because a zero-sum scenario in conflict management leads to conflict

[6] G. R. Berridge, Diplomacy: theory and practice, Basingstoke: Palgrave Macmillan, Third edition, 2005, p. 21.

[7] D, Kappler, M.Makumi, & O.Josephine, *Diplomacy: Concepts, Actors, Organs and Rules, op, cit,* pp. 10-11.

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settlements and not conflict resolution[8]. This approach therefore leads to short duration of management outcomes. In addition, track one diplomacy in conflict management takes place within an expected time limit. Time constrain can have an impact on both the government and the publics. When the government is constrained, it is forced to make quick decisions and agreements which can lead to problems of re-entry[9].

Track one diplomacy often takes place in areas that are known to the public, and exposed to public scrutiny; as a result, the publics can become a critic of the process carried by the government[10]. Finally, track one conflict management aim at negotiating for interests of parties at the detriment of values, conflicts have different values, bargaining is arguably not the most suitable method of negotiating for values, some values are neither negotiable or bargainable, hence when values are not managed properly conflict remains.

Track One and Half Actors

Track one and half diplomacy typically involves unofficial actors such as former government officials, statesmen and religious figures, who intervene between official government representatives to promote a peaceful resolution of conflict. The main strength of track one and half interventions in conflict management is that they can bring together non official, but influential members of the parties for direct, private interaction with joint analysis and problem solving of the conflict. Track one and half intermediaries are typically knowledgeable and skilled practitioners who are impartial and whose training and expertise enable them to facilitate productive dialogue and problem solving

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[8] M.Mwagiru, *The International Management of Internal Conflict in Africa: The Uganda Mediation 1985*, PhD. Dissertation, University of Kent at Cantebury, 1994, p. 69.
[9] M. Mwagiru, *Conflict: Theory, Process and Institutions of Management*, Nairobi: Watermark Publications, 2000, pp. 82-83.
[10] Keith Hamilton and Richard Langhorne in The Practice of Diplomacy, Routledge, 1995, p.24.

between the parties. The participants in these efforts, however, are not officials or members of negotiating teams, but rather politically involved and often politically influential members of conflicting societies. Their unofficial position permits them greater freedom to explore alternative perspectives and formulate new joint ideas. Finally, unofficial intermediaries have made a significant contribution in opening channels of communication between parties who otherwise would find it difficult to meet or acknowledge any contact.

Track Two Actors

Montville describes track two actors from a conflict perspective, he says that, track two actors include all other potential non state actors and stakeholders with an interest in the conflicted setting[11]. In this sense, it can be argued that track two intervention involves a variety of non-governmental and unofficial forms of conflict resolution activities between representatives of adversarial groups that aim to de-escalate conflict, hence, this intervention aims to improve communication and understanding between parties, and develop innovative ideas to be used in solving the conflict by track one actors. However, although some track two processes can be closely related to, and sponsored by official diplomacy and officials may take part in some track two processes, such processes cannot substitute for official interactions between states. In support of this claim, McDonald argues that track two diplomacy is not a substitute for track one but operates parallel or in support of it[12].

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[11] W.D. Davidson & J.V Montville, "Foreign Policy According to Freud," in *Foreign Policy*, 45, Winter, 1982, pp. 1-42:2-4.
[12] McDonald, J.W, & D.B Bendahmane, (Eds), *Conflict Resolution: Track Two Diplomacy*, Washington Foreign Service institute , 1987, p.1.

Track two diplomacy deals with maters normally dealt with at the diplomatic level but by people who are not constrained by official ties[13]. Burton says that track two diplomacy is in conflict with track one diplomacy, track two diplomacy is not just about official methods within which the political realistic world of power politics is conducted. He adds that track two diplomacy is not about improving negotiating skills so that leverage and power can be employed more effectively, but it is about world politics and human behavior[14].The objective of track two in conflict management is to construct supportive environments whereby non-state actors with an active interest in the issue can either initiate discussions on some issue which before were unapproachable by the track one diplomats, or initiate processes of clearing blockages preventing formal diplomatic discussions through informal dialogue, workshops, roundtables and other less than formal environments. McDonald adds that track-two diplomacy may include individuals or groups not associated with any government but who are engaged in processes of direct negotiation, mediation, or arbitration, when track two diplomacy involves individuals from the government they act in their private capacities[15].

In conflict management track two diplomacy has two broad objectives. First, it aims to reduce conflict by improving communication, increasing level of understanding, lowering anger, tension, fear, and misunderstanding between adversary groups[16]. Track two actors endeavor to humanize the magnitude of the conflict and get both groups to understand the other point of view. Second objective of track two actors is that they aim

[13] J, Burton, & F. Dkes, *Conflict: Practices in Management, Setlement and Resolution*, op, cit, p. 139.
[14] J. Burton, 'Track Two: An Alternative to Power Politics' in J, W. McDonald, and D.B. Bendahanme (Eds) *Conflict Reolution Track Two Diplomacy*, op, cit pp.65-72:67
[15] D. Louise, & J. McDonald, *Multi-track Diplomacy: A Systems Approach to Peace*, third edition, 1996, West Hartford: Kumarian Press, p.12.
[16] H. Kelman, "The Interactive Problem-Solving Approach," in Constructive Conflicts: *From Escalation to Resolution*, C.A Crocker, and F.O. Kreisberg(Eds), New York: Rowman & Littlefield, 1996, p.82.

to change the psychological perception of track one actors, to be more open on particular issues, and eventually come to accept track two thinking on that particular issue. Zartman says that when perception of parties diverges, concentration of parties and the attachment they attach to the process is weakened[17].

Unlike track one diplomacy, track two diplomacy is arguably less visible in conflict management, this is attributed partially to the fact that track two actors are less driven by power and because their operations are influenced by informal structures. And partially to the fact that operations of track two actors are not official policies and the process of track two diplomacy is not pre occupied with formal agreements and structures. Track two diplomacy is based on the notion that power alone can not explain the social relationship of actors who are in dispute. It therefore identifies the causes 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[18].

According to Mwagiru, track two diplomacy tends to stress interpersonal, social-psychological dynamics aimed at increasing each side's understanding of the underlying factors motivating the other's position, and its own, as a tool to open up possibilities for cooperative problem solving[19]. Track two activities concern efforts to develop new approaches to regional security where there is not necessarily a specific conflict being addressed by the Track Two process in question. One main weakness of track two actors is that they can have a bias in bringing matters into the open when for instance they have

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[17] I. W.Zartman, op, cit
[18] Ibrahim, Q.F, *Dual Dplomatic Aprocahes in Conflict Management: The International Peace Initiative in Somalia, 1991-1999*, M.A Thesis, University of Nairobi, 2000, p. 45.
[19] M, Mwagiru, *The International Management of Internal Conflict in Africa: The Uganda Mediation*, op, cit.

an interest in the outcome of a conflict. Track one 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.

In comparison between the two tracks, Burton argues that the relationship between track one and track two is that, track two is exploratory and eventually moves to an official level when it discovers options that subsequently can be negotiated[20]. On the other hand, Berman and Johnson observe that the important characteristics of unofficial diplomacy is that they can be disowned at any time by those in track one, whom they were carrying exploratory functions for[21].

Role of Track Two actors

Non official diplomacy covers many activities which are linked together only because they are not formal track one intervention. Unofficial intervention plays an important role in the management of conflict, because unofficial diplomats sometimes have greater access, and potential to follow more effective approaches than those of the traditional state actor. The roles on track two interventions include leverage and facilitation[22]. Leverage is often an approach utilized by third parties; it is described as the ability of a third party to persuade parties in a conflict that there is an alternative than fighting. Regarding facilitation, track two actors go through an analytical and exploration exercise about the conflict or issue they are dealing with, this is because they belief that it is only parties who know what the problem is with their relationships

[20] Ibid, p 72
[21] Berman, op, cit.
[22] M. Mwagiru, *The International Management of Internal Conflict in Africa: The Uganda Mediation,* op, cit. p. 69.

The Concept of Track two Diplomacy

Rosenau opens this discussion by saying that, the concept of track two diplomacy stems from the belief that conflict can be avoided if contacts between states are initiated early to build linkages of friendship and understanding[23]. In environmental diplomacy, different approaches can be used to get conflicting parties together in situations where state interest are in contention, in an attempt to change the way states view themselves in conflict, it is important to engage other parties who have interest in the outcome of the conflict and can possibly inject new ideas to solve the situation.

McDonald argues that, Track two diplomacy transcends the narrow power based approaches of traditional diplomacy by replacing the nation state, as the primary referent of conflict, with all interest groups[24]. This means that, instead of only having favorable discussions based on strategic interests with just heads of state, a fundamental characteristic of track one mission, track two diplomacy seeks to include all parties to the conflict that have interest in the outcome. In this way track two diplomacy contribute to conflict transformation by encouraging those involved in disputes to engage in constructive dialogue.

McDonald adds that Track two actors make their impact felt on interest groups namely, communities that share regional, national, or international identity[25]. Track Two diplomacy seeks to help all the parties involved in an issue of contention to change their way of thinking diplomatically, therefore, it entails processes such as problem solving

[23] J. Rosenau, 'Governance in the twenty-first century,' *Global Governance Journal*, Vol:1: 1995, pp 13-43:15.
[24] J. McDonald, Further Exploration of Track Two Diplomacy, op, cit
[25] ibid

workshops, dialogues, cultural exchanges and any other contacts established between parties that are engaged in a conflict.

Background to Track Two Diplomacy

The term track two was first coined by Joseph Montville in his attempt to distinguish traditional diplomatic activities conducted by states from unofficial diplomacy that is conducted by non states actors[26]. Montville 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. Primarily there was no explanation of the term track two diplomacy, when Montville used it, he merely noted that if official diplomacy might be called track one, then unofficial attempts to resolve differences might be called track two[27]. He defined track two as unofficial, informal interaction between members of adversarial groups or nations with the goals of developing strategies, influencing public opinion, and organizing human and material resources in ways that might help resolve the conflict.

For the purposes of this paper, the term track two diplomacy shall be defined as: unofficial dialogues often facilitated by an impartial Third Party actors and involving individuals with some connections to their respective official communities, focused on co-operative efforts to explore new ways to resolve differences over, or discuss new approaches to, policy relevant issues[28].

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[26] J. McDonald, Further Exploration of Track Two Diplomacy, in Kriesberg, L. & Thorson, S. (Eds), *Timing the De-Escalation of International Conflicts*, Syracuse. New York, 1991, p. 219.

[27] J.V. Montville, "Transnationalism and the role of Track Two Diplomacy," in *Approaches to Peace: An Intellectual Map*, W.S. Thompson and K.M. Jensen (Eds), Washington: United States Institute of Peace, 1991, p.7-11.

[28] H. Kelman, "The Interactive Problem-Solving Approach," in Constructive Conflicts: From Escalation to Resolution, eds., C.A Crocker, and F.O. Kreisberg, New York: Rowman & Littlefield, 1996, p. 82.

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The significance of Track two actors of diplomacy in conflict resolution is that, track two actors can reduce the propensity for protracted conflict by improving communication and encouraging a common ground among the disputing sides[29]. 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 (Track One) negotiations can attempt to do so. The role of Track two actors in these sense is to engage in informal interaction between members of adversarial groups or nations with the goals of developing strategies, influencing public opinions and organizing human and material resources in ways that might help resolve any prevailing conflict. Contemporary acceptance of the need for track two diplomacy is also based on the change in the nature of conflicts[30]. Potential conflicts around the Nile basin are increasingly the result of internal disputes in which governments or track one actors are the main agencies involved[31]. In this context, it makes little sense for track one actors to continue to deal with governments alone; instead interaction with track two actor's of diplomacy is required.

Perhaps the dominance of track one in explaining state relations is the fact that, since the creation of modern state system, governments have dominated the conduct of state relation. The need for power and protection of national interest has historically propounded states to engage in crude means to get their interests or to protect them. National interests are defined as goals or objectives that are considered important to the survival of a state, hence a state will employ all its capabilities to protect them. Organski

[29] T. Princen, *Environmental NGOs in World Politics*, London, Routledge, 1994. p. 15
[30] K. Krause & C. Michael, Broadening the agenda of security studies: politics and methods. *Mershon International Studies Review*, No. 40, 1996, pp186-239:187-188.
[31] J. Havermans, 1999. *Private Professionals for Peace, in People building peace*: Inspiring Stories from Around the World, European Centre for Conflict Prevention, p. 22.

argues that for a particular goal to qualify to be a national interest, it must be supported by the central government, it must be supported by a sizeable population and it deprivation must warranty national security of a state if denied[32].

Monteville identifies three phases of functioning by track two actors as, small problem solving workshops that bring together conflicting groups informally, influencing public opinion in an 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 for track two conflict management 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 track one mediation. The implication of the above to track two diplomacy is that, track two actors are rendered more flexibility and can respond to demands and requests of parties informally. In comparison to track one, it is observed that track one actors are less flexible since they are focused on state interests and political demands of the government.

Track Two Diplomacy in Environment Issues

The prominence of environmental issues as an agent of conflict has necessitated scholars to examine the subject environmental conflict. Birnie examines the role of international law in solving environmental conflicts and notes the inability of international law to handle environmental conflicts, has held hostage the political willingness of states to address environmental conflicts[33]. 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 environmental issues was held in Stockholm

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[32] H.J. Morgenthau, *Politics Among Nations*, 5 edition. New York: Knopf, 1978, p.249.

[33] P Birnie, ' The role of International Law in Solving Certain Enviromental Conflcits ' in Carol, J.E (Ed) International Enviromental Diplomacy : The Management and Resolution of Transfrontier Enviromental Problems, Cambridge: Cambridge University Press, 1990, pp 95, 98-101.

in 1972. Prior to that, environmental matters in the Nile basin were handled through limited agreements such as the 1929 and 1959 Nile Treaty agreements. Most of these agreements concluded before 1972 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[34]. Bjorkbom on the other hand argues that although there is an impressive legal and institutional frame work for the regulation of environmental conflicts, it is not a sufficient tool for the conduct of environmental diplomacy. He notes that Environmental problems have been addressed in a multilateral diplomatic context, which has some inherent problems such as coordination[35].

Environmental diplomacy involves a wide range of actors, including intergovernmental organizations, United Nations, International institutions, secretariats, elected conference officials Non Governmental Organizations as well as states. Track two actors in the Nile basin are grouped into two categories. The first category is that of those involved in committing environmental crimes and whose acts inadvertently contribute to environmental degradation. The second category are actors those whose actions are used to conserve, promote and lobby for sustainable development of the Nile basin, by extension, their efforts compliment state initiatives geared towards sustaining environmental security.

The strength of track two actors in the Nile Basin lie in establishing grassroots participation and holding multi stakeholder dialogues. Track two actors represent an unprecedented opportunity to develop the waters of the river and the environment within the basin to optimize the benefits available to all countries. The role of pro-track two

[34] R.P Barston, Environmental Diplomacy, op, cit, p. 150.
[35] L. Bjorkbom, 'Resolution of Environmental Problems : The Use of Diplomacy' in Caroll , J.E (Ed) International Environmental Diplomacy, pp. 123-127.

actors in the Nile basin can be traced back to the establishment of the Nile Basin Discourse (NBD)[36]. The NBD is a strategic and operational approach by civil society to influence the development of projects and processes among the Nile riparian states. It seeks to maximize social, economic and environmental benefits available to poor people within the Nile basin and to ensure that the NBI lives up to its stated objective of reducing poverty. The main objective of the NBD is to promote sustainable and equitable development, poverty reduction, and cooperation between all stakeholders in the Nile Basin[37]. Under this overarching objective the NBD aims to promote the open sharing and exchange of information on current Nile basin development that are related to environment security. They also coordinate civil society engagement in development processes under the Nile Basin Initiative (NBI)[38]. In addition, the NBD assists in capacity building of track two actors to craft ideas for developments that will centre on conserving the water resources and issues related to environment conservation, while reducing poverty in the basin. It also assists to develop the means to monitor and evaluate the impact of NBI projects and processes on local communities throughout the basin.

However, the overall aim of the NBD is to develop a stand alone, autonomous civil society organization that will take the task of facilitating the discourse forward. Its achievement include the fact, the NBD helped in setting up a mechanism of governance, it assisted in establishment of National Discourse Forums (NDFs) and established an office in Entebbe, Uganda to carry out the programs of the Discourse. The Discourse's role is to promote the understanding that the Nile is a shared resource shared by the

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[36] C. Philibert, "Approaches for Future International Co-Operation." Organization for Economic Co-operation and Development, OECD/IEA Information Paper, 2005, p.2-3.
[37] H. Erlich, *The Cross and the River: Ethiopia, Egypt, and the Nile*. Boulder, London: Lynne Rienner Publishers, 2002, p 87.
[38] T. Princen and M. Finger, *Environmental NGOs in World Politics*, op. cit, p 65.

peoples of the Basin irrespective of their nationality or status and shared with the global community. The NBD has a key role to play in wetland conservation within the basin and efforts at achieving poverty reduction.

The NBD 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 environmental security. The main role of IUCN is that it facilitates environmental security programmes with funding[39]. In addition the IUCN operates a Regional Programe for Eastern Africa which oversees conservation of the environment. IUCN helps to raise awareness through workshops at national level aimed at facilitating national meetings to disseminate information, raise awareness and encourage·exchange of data and views about planned developments in the Nile basin and impact on people and poverty alleviation. It is also engaged in development of information packages and awareness materials as part of national resource centre on civil society, dissemination of information to local levels and facilitation of exchange of ideas and information about basin issues including the plans and progress[40]. IUCN also facilitates the Nile Transboundary Environmental Action Project (NTEAP). NTEAP promotes cooperation among the Nile Basin countries in protecting and managing the environment and the Nile River Basin ecosystem[41]. The project provides training to develop skills in government

[39] S. Bernstein, *The Compromise of Liberal Environmentalism*. New York: Columbia University Press, 2001, p. 221.
[40] World Bank 2005, Nile Basin Initiative, Shared Vision Program, Regional Power Trade Project. Part 1: Minutes of the High-Level Power Experts Meeting. Dar es Salaam, Tanzania, February 24-26, 2003. ESMAP Report, World Bank, Washington D.C.
[41] World Bank 2005, Nile Basin Initiative, Shared Vision Program, op, cit, p.10.

ministries, NGOs and local communities in such areas as environmental management and monitoring, water quality monitoring, and conserving wetlands.

The project also seeks to share broadly information about issues affecting the environment among all stakeholders in the Nile countries, including developing a decision support system that is based on reliable and consistent environmental data from each country to enable better region wide environmental planning and management[42]. The project includes a grant program through which local Non Governmental Organizations and communities receive small grants to promote community based approaches to land and water conservation to reduce soil erosion, desertification, and pollution, and to control invasive water weeds[43].

The other track two actors involved in facilitating funds to environmental security is the Overseas Development Institute (ODI). ODI provides technical support in areas that include poverty analysis, media training and civil society capacity building in social impact assessment, monitoring and evaluation[44]. In addition, The Overseas Development Institute has been involved in the process of negotiation of basin agreement between states, ODI helps states to minimize ratification risks.

On the other hand, the Institute for Security Studies (ISS) seeks to conceptualize the debates on international relations and human security in Africa[45]. One of its goals is collaborative security to enhance Africa's capacity to engage in human security debates, which incorporates environmental security. Through its Environmental Security Programme (ESP), ISS seeks to capacitate Nile riparian states so that they are in a

[42] ibid
[43] ibid
[44] T, Princen, *Environmental NGOs in World Politics*, op, cit, p 67.
[45] ibid

position to engage constructively in international and regional environmental processes. The ISS aims to conceptualize, inform and enhance human security in Africa with the aim of supporting policy formulation and decision making at every level. The environment security research unity is responsible for environmental security within the Nile basin. Unlike the other track two actors discussed above, ISS is also involved in the Nile basin as a regional research institute operating across Nile basin riparian states, its operations are guided by a broad approach to security that reflect the changing nature and origin of threats to human development in general. In particular, ISS runs a project called The Environmental Security Programme (ESP) and Environmental Crimes Project (ECP), both aim to develop mechanisms to fight against environmental threats and sustain environmental diverstity in the Nile basin.

United Nations Environment Programme (UNEP) runs a project in the Lake Victoria basin that aims to help riparian countries produce an effective and sustainable system for managing and conserving the lake[46]. By involving local communities in its design, the programmes embrace the dual needs of development and conservation so that livelihoods of the people could be maintained into the future. The programmes are varied from biodiversity to fisheries, impacts of sedimentation, land degradation and pollution. UNEP is involved in joint fact finding and compiling information so that all Nile riparian states could review it and update it using technology[47].

On the other hand the media plays an important role of public diplomacy through the different mediums an example is through the use of the internet, print and electronic media. Often media is used to lobby through articles in the news-papers,

[46] www.unep.org/enviromentalgovernance, accesed on 25 May 2010.
[47] ibid

documentary features on television and blog sites on the internet. All this mediums engage participation of publics from the different Nile basin states on issues of environment security. As result, people in the different states are more aware of issues that are going on.

Nile Basin University Forum

The Nile Basin University Forum is an association of universities in East Africa, based in Uganda, its main role is to encourage research studies on the Nile basin that are geared to promoting environmental security among Nile basin states. It also conducts seminars where members from different states, come together to brain storm and come up with solutions that will help in preserving of the environment.

Nile Basin Society

Also the Nile Basin Society (NBS) is a Canadian organization that uses Information and Communication Technology (ICT) to support the work of those pursuing sustainable development in the Nile Basin[48]. Its aim is to increase the global and local awareness of the Nile Basin water crisis, and develop a widely shared vision of a desirable, sustainable water future between Nile riparian countries and help them in the way to get there. They provide up to date information in local languages in addition to English and French. This way, the information is readily useable by the local media, Non Governmental Organizations (NGOs), governments and, ultimately, the Nile Basin population. It also Provides information about appropriate technologies in communications, water management, irrigation and agriculture and the companies that can supply them.

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[48] www.nilebasinsociety.org/accessed on 11 July 2010.

Friends of Lake Victoria

Friends of Lake Victoria is an organization of professional individuals from three riparian states whose main aim is to increase awareness of environmental degradation within the Lake Victoria. The organization was formed to raise awareness after it first emerged that the water levels of Lake Victoria were decreasing because of environmental degradation in the three East African Community states. Although most of the founding members are based abroad, Friends of lake Victoria has a regional office in Kampala, Uganda that is used to coordinate its activities locally. Their role is to present findings in international seminars and also lobby for preservation of water catchment's areas in the region[49].

Association of Lake Victoria Fishermen

Among the people whose livelihoods depend on the lake waters are fishermen. ALVF is an association of fishermen from the three East African countries[50]. Their main interest in the lake waters is that continuous degradation of the environment, will affect the produce of fish. The association campaigns against use of poisonous substances to catch fish, and fishing of fish species that are endangered and are small in size. The association advocates for safe methods of fishing and encourages fishermen to use the right size of fishing nets, in addition, it encourages fishermen from the three states to exploit fishing equally as the lake is a common good.

Research Institutions

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[49] www.allafrica.com/stories accessed 11 July 2008.
[50] Ibid.

There are a number of ongoing and planned research projects in the Nile Basin that are executed by a number of non state actors. They include; Consultative Group on International Agricultural Research (CGIAR). The Nile basin is one of what is referred to as Benchmark Basin project of the CGIAR Challenge Program on Water and Food (CPWF)[51]. CGIAR operates in nine out of ten riparian countries; it is aim is to support agricultural research that adds value to national programs. It also mobilizes agricultural science to reduce poverty, foster human well being, promote agricultural growth and protect the environment.

The International Water Management Institute for Nile Basin and Eastern Africa (IWMI NBEA) implements numerous research projects on water resources, hydrology, and irrigation management. IWMI NBEA operates the Integrated Database Information System (IDIS) which is an on line data sharing platform that provides access to water, agriculture and environment of several basins, including the. Food and Agriculture Organization (FAONile) provides Information which is intended to strengthen the abilities of the Nile Basin states to take informed decisions with regard to water resources policy and management. It is implemented by the ten Nile riparian states with technical and operational assistance of the Food and Agriculture Organization FAO.

In conclusion, this chapter has attempted to capture the issues that track two actors address among the Nile riparian states, the following chapter will seek to analyze the case study of this study and present the environmental security situation in the basin, to achieve this, it will utilize unpublished primary data from interviews and published primary documents.

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[51] www.fao.org/ research/eastemafrica, accessed on 11 July 2010.

Chapter Four

## Environmental Security in the Nile Basin

Introduction

Chapter three examined the theme of track two diplomacy in the Nile basin, it described, compared and contrasted track two diplomacy from other types of diplomacy, then developed an inventory of track two actors in the Nile Basin. The aim of this chapter is to examine environmental security in the Nile Basin, and explore possible entry points for contributing to knowledge creation. This chapter will therefore analyze the theme of environmental security in the Nile basin. It will highlight issues of environmental security; show the causes, impacts, consequences, and the countries where they happen. To achieve this, the chapter will mainly use primary data to build conceptual basis, 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

The Nile River covers a distance of 6,700 kilometers and shared among ten countries. On the other hand, the Nile Basin covers an area of 3.1 million km², of which 1 percent (%) is urban, 2% are covered by forest, 3% by wetlands, 3% by open water, 4% by shrubs, 5% by irrigated cropland, 10% by cropland, 30% by desert/semi-desert and 42% by grassland[1]. The overall area of the Nile basin is estimated to host a human

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[1] G. T. Degefu, *The Nile. Historical, Legal and Development Perspectives*. St. Victoria, B.C, Trafford Publishing, 2003, pp. 170-197:173.

population of about 300 million people, among this, 160 million people are directly depended on the Nile resources[2]. The map in the next page shows the Nile Basin region.
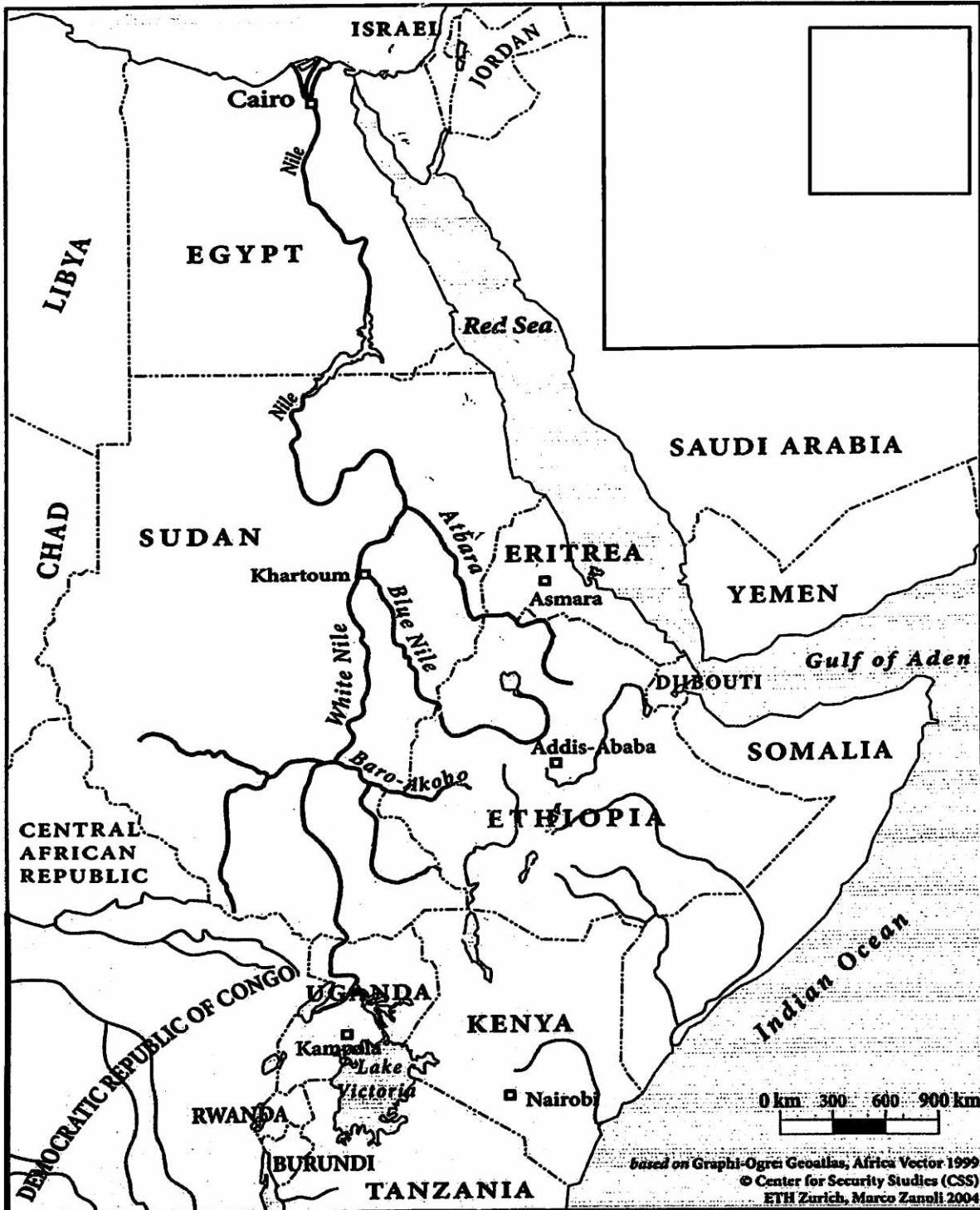
[2] www.undp.com, accessed on 16th July 2010.

Environmental Threats

The literature analyzed in Chapter Two showed that security issues have expanded scope from military or physical security issues to concentrate on human oriented security issues, this expansion is credited to the fact that human oriented security threats have an effect on individual security than physical threats[3]. With this understanding, it can be said that, despite the fact that the Nile Basin is endowed with extraordinary natural resources, its inhabitants face considerable challenges emanating from environmental threats[4]. Environmental threats can be described as an antagonistic state of relationships between individuals and members of society in relation to one or several aspects of the environment, at local, regional or global level, environmental security is important because of the existent of environmental threats.

To put environmental security theme into context, this section will highlight environmental threats that challenge environment security in the Nile Basin. The topic of environmental security is wide to be exhaustively discussed in this chapter, the attempt to examine it shall be done within the confinements of scholarly principals and perspectives of environmental security scholars. In this case, Homer-Dixon model of environmental conflict will be utilized as a map to trace environmental threats in the Nile basin. Homer-Dixon used the following definition to capture the essence of environmental threats, he said that environmental threats are those that are caused by environmental scarcity in interaction with a variety of, often situation specific, contextual factors[5]. Homer-Dixon developed a three phase model of environmental induced conflict to expound on his

[3] See, Chapter Two.
[4] T.Tvedt, *The River Nile in the Age of the British and the Quest for Economic Power*. London, Tauris and Company, 2004, pp. 1-13.
[5] T.F. Homer-Dixon, On The Threshold: Environmental Changes as Causes of Acute Conflict in: International Security, Vol. 16, No. 2 (fall 1991), pp. 76-116:79

definition. He said that environmental conflicts can be induced by demand, scarcity or structural conflicts. Accept

On the other hand, Gleditsch developed a model he called environment conflict resource to analyze environmental threats in environmental security[6]. Gleditsch model broadly identifies two categories of environmental threats, the first category are threats that emanate from natural resource constrains and the second category are threats that emanate from environmental degradation[7]. Both of these categories qualify to be considered as security threats because their effects can kill in ways that are different from physical wars[8]. For analytical purposes emphasis for this study will duel on environmental threats that emerge from resource degradation.

Environmental threats characterized by degradation in the Nile basin, include, land degradation, pollution of water resources through industrial and commercial activities, overstrain of the environment's capacity due to population growth in rural and urban centers, rearing of huge stocks of animals among the pastoralist communities and loss of wetlands[9]. Khodari observes that the above identified highlights are further intensified by internal conflicts, persistent poverty and loose legislation of laws which characterize the status of most Nile riparian states[10]. The following section will analyze the above issues in depth to access their impact on environment security; hence the first issue to be analyzed is land degradation.

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[6] N. P. Gleditsch, *Environmental Change, Security, and Conflict*, The Netherlands: Van Gorcum and Comp, p. 53.
[7] ibid
[8] Thomas Homer-Dixon, op, cit.
[9] Nile Basin Society, Panel Paper, May 2005.
[10] N El-Khodari, *The Nile River: Challenges to sustainable development*. Presentation to the River Symposium 2003.

Land Degradation

Land degradation refers to a temporary or permanent decline in the productive capacity of land[11]. Decline in land production has a direct effect on food production, this means that, the per capita acreage in production is reduced; hence, farmers, pastoralist and all who depend on land will need extra land to achieve production targets that they have been accustomed to. In this sense, when people demand for more land for grazing, farming and other activities and the capacity of land can not meet the demand, these group may start to scramble over what is available, if the situation escalates, it generates into a conflict.

During the research, it emerged that the main agents of land degradation in the Nil Basin are water and wind erosion, which are further aggravated by overgrazing and improper agricultural activities among communities living around the Nile Basin. According to a report by Food Agriculture Organization (FAO), the most important effects of land degradation are decline in grazing fields and food production[12]. Food crops like maize, sorghum, beans and cassava are part of the stable food among most communities living in the Nile Basin. On the other hand decline on grazing fields among the pastoralist 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[13]. In addition, land degradation is also caused by rural people who are increasingly forced to cut down forests for energy and use as building materials.

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[11] K.Conca, & G. D Dabelko, *Environmental Peacemaking.* Baltimore, MD: Johns Hopkins University Press, 2002, p.3.
[12] Annual Report, 'Food Security in the Horn of Africa', *African Security Perspective*, Vol: 112, No: 2, 2009, pp. 1-148: 7.
[13] P. Mwaura, Daily Nation Newspaper, 21 March, 2010.

According to a report by ISS, land degradation is rampant in Southern Ethiopia, Sudan, North Eastern Kenya and North western Uganda. In Sudan, for example, silt deposits and weed growth have reduced inflow and capacity of water in the Sudd and Bahel dam[14]. In North western Uganda and North Eastern Kenya, the diminishing level of grazing land has forced nomadic communities living here to migrate to areas that have pastures, causing environmental refugees and increased cases of cattle rustling[15]. Reduced food production has increased the number of people who are dependent on relief food in Ethiopia, Somalia, Northern Uganda and Southern Sudan[16]. 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 level are reduced gradually and on extreme cases, rivers can loose their courses.

The link between land degradation and environmental security can be summarized using Homer-Dixon model mentioned above. In Homer-Dixon terms, land degradation in this perspective is a supply induced threat[17]. Supply induced scarcities results from the depletion of resources. The people most affected are those living in rural communities and practice small scale farming, the extent of land degradation is that, effects resulting from them threaten the security of people.

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[14] D. Mwiturubani, *Environmental Security in the Uganda*, Monograph, Vol:3, No: 7, p 7-10.
[15] I. Farah, 'Human Security and Livelihood of Pastoral Communities in the Horn of Africa', in *Human Security: Setting the Agenda for Africa*, Makumi Mwagiru (Ed), Africa Peace Forum, Nairobi, 2008, pp. 183-187.
[16] P. Mwaniki, Annual Report, 2009, 'Food Security in the Horn of Africa', op, cit.
[17] T.Thomas Homer-Dixon, op, cit.

Population Growth

Population growth exerts pressure on environmental resource base[18]. In Homer-Dixon terms, when population increases and the environmental resources are constant, it creates a demand induced scarcity, whereby the people are forced to depend on the few resources that are available[19]. This characteristic is noteworthy because significant increase in population puts pressure on natural resources like water, food and grazing pastures. The growth in population is intensified by the fact that most states in the Nile basin are semi arid. Demand for resources coupled with the semi arid nature conditions the increased population to move from one place to another in such of food, pastures and water, when this process of migration is replicated over a whole region, it renders some people as environmental refugees.

Increase in population puts pressure on water resources for animals and domestic consumption. Although population growth is common among all Nile riparian states, some countries like Ethiopia and Egypt which have high population rates, experience different consequences. According to Balinda, Ethiopia has high population which puts pressure on water, food crops, trees and grazing fields. In comparison, the population in Egypt exerts pressure on environmental security through water pollution and soil degradation[20]. The impact of consequences between the two states stems from the fact that most areas in Egypt are developed and people live in urban centers while in Ethiopia, majority of the people live in rural areas and Ethiopia is less developed[21]. Ethiopia also

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[18] P.N.Gleditsch, 'Environmenal change, security and conflict'. *Turbulent Peace: The Challenge of Managing International Conflict.* (Eds) C. A. Crocker, F. O. Hampson & P. Aall. Washington,DC: United States Institute for Peace, 2001, p. 233.
[19] Ibid.
[20] Personal Interview with Alfred Balinda, 24 June 2010.

lacks hydrological data, capital, and modem technology and support from international organizations and donor countries to mitigate these threats, in contrast Egypt has advanced technology and river basin information, to control this kind of threats[22]. However lack of cooperation between Egypt and Ethiopia has seen Ethiopia continue suffering from the same threats.

Deforestation

United Nations Environment Programme identifies deforestation as one of the main challenges facing most developing states[23]. Deforestation in the Nile Basin is caused by different needs, chief among them being demand for wood for household use and commercial fuel. Deforestation is also caused by demand for wood for drying fish, curing tobacco, and baking bricks. In some countries like Uganda and Rwanda, deforestation is also necessitated by the demand for sugar cane, tea and coffee plantations[24]. The threat of deforestation is rampant in, Kenya, Tanzania, Somalia, Ethiopia and Uganda. Namanve said that in Uganda, a large portion of Mabira forest was been cleared to create land for sugar and coffee plantations[25]. These plantations have replaced large areas of forest while at the same time introducing large quantities of pesticides and fertilizers into soil and water systems[26].

[22] R.T. Gurr, 'Containing internal war in the twenty-first century'. *From Reaction to Conflict Prevention: Opportunities for the UN System.* (Eds) F. Hampson & D. Malone. Boulder, CO: Lynne Rienner, 2002, p.71.

[23] www.unep.org/ environment/deforestration, accessed on, 12 September 2010.

[24] Daily Monitor Newspaper, 26 April 2007, p 2.

[25] Personal Interview with Ruth Namanve, 18 June, 2010

[26] Y. Mohammed & M. Loulseged, The *Nile Basin Water Resources: Overview of Key Research Questions Pertinent to the Nile Basin Initiative.* Colombo, Sri Lanka: International Water Management Institute, 2008, p.3.

Perhaps, Somalia is the worst affected country among Nile riparian states[27]. The civil war which began in 1991 created lawlessness, as result, large tracts of forests were cleared for charcoal. The effect of this is that soil erosion has increased in most parts of Somalia and reduced the fertility of land. This has further rendered Somalia to depend on relief food. By extension, in Western Uganda and Eastern Congo, illegal logging of trees like oak and mahogany has created a platform for conflicts to prevail; these conflicts are in Homer-Dixon terms, structurally induced. Namanve notes that sales from illegal logging are not shared equally among communities where these trees grow, hence, this leads to a structural conflict. Finally, due to deforestation surface runoff has increased, as a result, abnormal floods and unexpected droughts have increased in most parts of Nile basin states, affecting the agricultural and human settlements[28].

Water Pollution

Water scarcity is a major challenge to environmental security in the Nile Basin. It is further exacerbated by incidence of climate variability and natural shocks such as droughts and floods[29]. Drammeh said that water has become since water has become scarce, competition to access and use water sources has often result conflicts[30]. Hence, conflicts are more likely to occur as a struggle to utilize scarce water resource increases. Balinda[31], adds that declining water quality has increased competition for fresh water among communities that traditionally had plenty.

[27] United Nations Environmental Programme (UNEP). *Understanding Environment, Conflict and Cooperation.* Nairobi: Woodrow Wilson International Center for Scholars/UNEP, 2004.
[28] M.A. Kishk, 'Combating desertification, is it always possible? The case of small Egyptian farmers'. *Geojournal* Vol:31 1993, p.77-88.
[29] K. Kim, & V.U. Smakhtin, *Climate Change Impact on Hydrology and Water Resources of the Upper Blue Nile River Basin, Ethiopia,* op, cit, p.27.
[30] Personal Interview with Halifa Omar Drammeh, Environmental Governance, United Nations Environmental Programme, Nairobi, on 02 July 2010.
[31] Personal Interview with Alfred Balinda, Nile Basin Society Uganda, on 21 July, 2010.

Water quality within the Nile Basin has also been deteriorating[32]. The major threats to water quality include insufficiently treated domestic, urban and industrial waste. non point pollution from pesticides and fertilizer residues, siltation and sedimentation, increased salinity and wetland loss. The effect of water pollution can be assessed by considering its impact on commercial activities. A case in point to illustrate this issue was in 2005, when the European Union banned fish exports from Lake Victoria because they were claims on media that fishermen in the lake were using poisoning water to capture fish[33].

Water borne diseases are becoming more prevalent throughout the Basin, as toxic and hazardous wastes cause danger in some local areas. 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, like upper west Nile in Uganda and South Sudan along the Bahel[34]. In addition, Mwiturubani identifies deforestation, cultivation of unsuitable marginal lands, excessive use of agricultural chemicals, overgrazing, and poor management of cultivated land as some of the main agents for environmental insecurity in the Nile basin. These factors lead to depletion of general environment as well as water, wind and soil erosion. Soil erosion for instance harms productivity by depositing silt in rivers, irrigation systems and river transport

[32] B. Schultz, and Stefan Uhlenbrook, *Water Security : What Does it Mean, What May it Imply?* Discussion Draft Paper for the Session on Water Security. Wednesday, 13 June 2007. Delft, Netherlands, 2007, pp. 2-3.
[33] Personal Interview With, Brian Magala, Spokesman for Fishermen Association of Gabba Beach Kampala, Uganda, on 09-July 2010.
[34] NTEAP (Nile Transboundary Environment Action Project) 2005. *The status of EE&A within the Nile basin. A report on initial countries surveys.* Unpublished Report, PMU Khartoum Sudan.

canals, increased soil erosion can also lead to increasing deficits in food production, declining food security, and human poverty[35].

Pollution from urban centers is identified as the major challenge to water resources; this has lowered the quality of clean water as people are forced to drink contaminated water from rivers, lakes and underground aquifers. Pollution has increased the number of waterborne diseases among people. Mwiturubani a senior researcher at the Institute of Security Studies (ISS) concurs with Balinda and says that lack of clean water is a challenge both to people in urban centers and rural areas[36].

In addition, insufficient water resources intensify the movement of environmental refuges within Nile riparian states, the most affected people in this category are pastoralist communities and people living in semi arid areas who lack access to drinking water for animals and human beings, hence are forced to walk for long distances, over state boundaries in search of water. On the other hand, Magala notes that water hyacinth and other invasive aquatic weeds have spread throughout many parts of the Lake Victoria, river Nile and other rivers that feed into the Nile basin impairing the functions of natural ecosystems, threatening fisheries and interfering with transportation[37].

A United Nations Development Programme (UNDP) report in December 2009 said that, demands for water resources in the Nile basin were increasing among different users in local communities as well as among urban areas[38]. Often, this use goes

[35] KiKim, & V.U Smakhtin, *Climate Change Impact on Hydrology and Water Resources of the Upper Blue Nile River Basin, Ethiopia,* op, cit..

[36] Personal Interview with Donald Mwiturubani, Senior Researcher at Institute of Security Studies, on 06 June 2010.

[37] Personal Interview with Brian Magala, op, cit.

[38] United Nations Environment Programme, Annual Report of 2009, p 146.

unchecked because the governments have different capacities to regulate it is use. This incapacity according to Namanve is necessitated by poverty and weak governance laws. In Kampala, Nairobi, Juba and Mwanza, there are numerous car washing bays and irrigation schemes that are established along water catchmnet areas. The rate at which these establishments withdraw water is unregulated by local authorities, since this is the trend among most urban areas, there is a likely hood that water resources are restrained further, in Homer-Dixon terms, this creates a ripe situation for supply induced environmental threat.

The UNDP report said further that, five of the ten Nile riparian states are among the poorest in the world, coupled with the fact that most states in the Nile basin are preoccupied with internal conflicts, environment threats are not regarded as major national security threats. When states are occupied with internal conflicts, they pursue policies that will safeguard their physical national security from internal and external aggression; it is therefore a challenge for Nile riparian states to provide individuals with security from environmental threats.

Soil Erosion

Soil erosion is a threat to environmental security because it causes serious damage to soil by reducing fertility and productivity of the soil. In more advanced stages, soil erosion can modify farm field to the extent that cultivation is no longer feasible or physically possible[39]. Soil erosion is accelerated by human intervention through deforestation, overgrazing and poor farming practices. Soil erosion causes soil and organic matter loss hence loss of soil fertility and reduction in crop yields. In addition to

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[39] World Conservation Union for the OECD Development Assistance Committee (IUCN). *State of the* Art Review on Environment, Security and Development Cooperation, 2002, p.15.

these on site problems, it also produces important off side effects, like down stream sediment deposition in fields, flood plains and water bodies, water pollution and reservoir siltation.

Causes of soil erosion include, cutting forests, overgrazing torrential rain, burning of vegetation cover, and faulty agriculture land use. Fire induces certain synergistic effects. It raises the temperature of the soil, consumes organic matter and breaks down soil aggregates increasing bulk density of soil and decreasing its permeability. This change reduces infiltration of water into the soil, increases runoff and promotes erosion and soil slippage on steep slopes. Overgrazing and browsing affects the aeration of soil and make it compact and hard and finally render it hard to grow crops and plants. Forests open to grazing are changed first into shrubby vegetation and finally into grassland. Due to overgrazing shoot or root growth retards and expose land surface to erosion.

Loss of Wetlands

Tadesse says that perhaps the most unseen but lethal threat to Nile basin states is the drainage of wetlands[40]. This is echoed by Njuguna in reference to a research conducted on wetlands in the Nile basin states. Here, it emerged that, wetlands are drained for agriculture, industrial, commercial and human settlements[41]. In some cases like in Kampala, Uganda, Njuguna found out that, draining of wetlands has increased to such an extent that their functions are impaired, hence, their natural capacity as buffer and filter for sediments and store for water pollutants are exceeded and reduced.

[40] E-mail response by Debay Tadesse, on African Security Perspective, on 25 July 2010.
[41] Personal Interview with Philip Njuguna, Environmental Security Researcher ISS.

In contrast, it is arguably a fact that the treaty regulating water use in the Nile basin contributes to environmental insecurity. This claim is based on Homer-Dixon third perspective that, structural induced capacities can cause conflicts. In the Nile basin case, this implies that when a resource is common to all states but legal regulations prevent other states from accessing them, can create a conflict. For this reason, the following section will analyze the 1959 treaty and it is implication to Nile Basin.

Treaties of Nile and environmental security

The foundation of structural resource induced threats among Nile riparian states was the 1929 and 1959 Nile treaties which are criticized as colonial relics[42]. The 1959 Agreement for the Full Utilization of the Nile Waters was between Egypt and Sudan. This treaty allocated 55.5 billion m³ for Egypt and 18.5 billion m³ for Sudan. The "United Arab Republic and Sudan Agreement for the Full Utilization of the Nile Waters" was signed in Cairo on 8 November 1959 between Egypt and Sudan. The agreement created the legal foundation for allocating water between the two countries before building the Aswan High Dam[43]. Under the arrangement, any country South of Egypt was required to get Egypt's approval for irrigation or hydroelectric projects so that those projects don't cause a drop in Egypt's water level. This requirement pitted Egypt against countries such as Tanzania and Kenya, which over the years had made plans to use the basin waters for their own gain[44]. When the agreement was signed, it was assumed that the combined

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[42] Electronic Mail response from, A. Kambu, Senior Water Law Governance Expert at the United Nations Enviroment Programme, on 29-June 2010.

[43] M. Shahin, 1985, *Hydrology of the Nile Basin* Developments in Water Security Science Series No. 21 New York: Elsevier Science Publishers. pp. 1-15.

[44] A.T Wolf, *'Middle East Water Conflicts and Directions for Conflict Resolution'*, IFPRI 2020 vision Brief 31 April 1996, p. 1.

needs of the upper Nile countries would not exceed two thousand million meters cubic[45].

But as development pressures increase in the other eight riparian countries, it is obvious

that this agreement is bound to be challenged.

According to Tadesse, the Agreement of 1959 must be understood in the context

of the Cold War, when Egypt was aligned with the USSR and Ethiopia with the USA and

Great Britain[46]. Due to the Cold War, a consensual agreement between the two countries

was practically impossible at the time. According to Kambu, the net effect of the Nile

treaties denied upper riparian states the rights to use the waters of the Nile without prior

approval of Egypt[47]. Khameri-Mbote a legal expert says that, other riparian states

objected to this state of affairs[48]. As a result, Nile riparian states agreed in principle that

things should change, however, the nature of change in terms of rights to the water has

not been agreed on. There is no cooperation and agreement among the Nile riparian states

has become an obstacle for development and has not made any significant contribution to

the sustaining of environmental diplomacy[49]. As a result, Egypt feared that the use of the

waters of the Nile by other riparian states will increasingly threaten its national

security[50]. The concern arises from, for example, Tanzania announcement that it will

undertake a 170 km water pipeline project from Lake Victoria where 14 percent of the

Nile originates[51]. Kenya on the other hand said that it will not accept any restrictions on

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[45] ibid

[46] Debaty Tadesse, op,cit.

[47] A. Kambu, op, cit.

[48] Paper Presented by Patricia Khameri Mbote, at the International Environment Law Research Centre.

[49] A. Allen, 1992, The Development of Land and Water in Egypt and Sudan Mid-1960-1990. In Graham P. Chapam and Kathleen M. Bakar (Eds). *The Changing Geography of Africa and the Middle East.* New York: Routledge. pp. 132-133.

[50] Y. Mohammed and Makonnen Loulseged, *The Nile Basin Water Resources: Overview of Key Research Questions Pertinent to the Nile Basin Initiative.* Colombo, Sri Lanka: International Water Management Institute, 2008, pp. 3-7.

[51] ISS monograph, No: 70.

the use of Lake Victoria and River Nile, both of this claims are seen as violations of the 1959 treaty.

To date, there is no comprehensive agreement on the use of the Nile River water that binds all the riparian states, and no measure of integrated planning to develop its basin. The fewer agreements that exist have been concluded between two or three states mainly with the aim of securing the interest of two states, and to some extent regions, to the total exclusion of all riparian states[52]. The head of Nile Basin Discourse, Kenya chapter, says that; upstream countries, including the East African countries of Kenya, Uganda and Tanzania, often express concern over the long standing arrangements, arguing that the treaties have served to give Egypt unfair control over the use of the river's waters[53]. None of the colonial treaties involved all the riparian countries and therefore, did not deal equitably with the interests of the upstream countries.

From the above it is obvious that when national interest of states are protected by legal treaties, it makes it hard for other states that share a common resource to make any meaningful benefit. Shared water resources should ideally be used for joint gains as is the case in the Mekong river basin in southern Africa[54]. The impact of the treaty on environmental security is not direct, but indirectly affects other dimensions of human security like economic security and health security. Economic security is affected since people in Ethiopia, Kenya and Uganda among other Nile riparian states who should benefit from irrigation and fishing are denied access.

[52] East African Community, Environmental Programe: Water and Security in the Region, 2009.
[53] Personal Interview with Josephine Mogeni, NBI Kenya Chapter, on 22 May 2010.
[54] R. Just, & S. Netanyahu, *Conflict ad Cooperation on Trans-Boundary Water Resources*. Norwell Massachusetts: Kluwer Academic publishers, 1998, pp. 6-8.

The Constitution of Ethiopia empowers the state to enact laws for utilisation of natural resources, while regional states have powers to administer natural resources within their respective regions in accordance with the federal laws. The Ministry of Water Resources is responsible for water resources at the federal government level while at the regional level, states have the responsibility for administration, development and protection of water resources in their respective regions. Under the Constitution every Ethiopian is entitled within the limits of the country's resources to clean water. The Water Resources Management Policy of 1999 provides for water quality management and supply while the Environmental Policy of 1997, provides for the Polluter Pays Principle where by polluters of water are made to pay according to the impact of pollution caused. The Health Policy provides for prevention of environmental pollution from hazardous chemical and industrial wastes.

The Constitution of Kenya does not have direct environmental protection provisions. The major law dealing with water management in Kenya is the Water Act. The Act vests the right over all surface and ground water in the State. The overall power for the control of every body of water is exercised by the minister for water. The Water Resources Management Authority (WRMA) is responsible for the allocation of the water resources through a permit system. The Water Act further recognizes the role of community groups, organized as water resources users associations, in the management of water resources. The Act provides that the degree of purity of effluents in water must be controlled by the Water Apportionment Board Apportionment Board

The main policy dealing with water management is the National Water Policy of 1999. It promotes an integrated approach to water resources management. The National

Environment Management Policy provides for sustainable management and development of water resources in a coordinated and integrated manner. The Constitution (1995) provides for environmental protection and conservation. It imposes a duty on the government to protect important natural resources including water on behalf of the people of Uganda

Lastly, it can be argued that the approach to environmental security issues among Nile riparian states is simplistic, this is perhaps not surprising bearing in mind that the dominant actor in security affairs is the state, environmental issues would have been different if the issue of environmental security in the Nile basin is managed not only by lone state actors but also by non state and individuals actors as well. This suggestion of how non state actors can contribute to environmental security will be developed and examined in detain in the next chapter.

Table One

Summary of Nile Basin Environmental Threats	
Basin-wide causes	Policy, governance, institutional and capacity constraints, insufficient environmental education and awareness, limited access to environmental knowledge and information (including relevant scientific data), unclear tenure and inadequate access to resources for local stakeholders, inadequate management of protected.

Priority Environmental Threats by Country	
Burundi	Deforestation, soil erosion, degradation of rivers banks and lake shores, mining, Drainage of Wetlands and 1959 Nile Basin Treaty.
DR Congo	River and lake pollution, deforestation, soil erosion.
Egypt	Water pollution, filling of wetlands, desertification, water logging and soil salinity, sanitation, river bank degradation.
Ethiopia	Deforestation, overgrazing, soil erosion, desertification, sanitation, loss of biodiversity, floods, drought, Drainage of Wetlands and 1959 Nile Basin Treaty.
Kenya	River and lake pollution, deforestation, desertification, soil erosion, sedimentation, Drainage of Wetlands and 1959 Nile Basin Treaty, and water weeds.
Rwanda	Deforestation, soil erosion, degradation of river banks and lake shores, desertification, wildlife hunting, overgrazing
Sudan	Soil erosion, desertification, pollution of water, floods, droughts, sanitation, and deforestation.
Tanzania	Deforestation, soil degradation, desertification, river and lake pollution, , loss of Wetlands and 1959 Nile Basin Treaty.
Uganda	Draining of wetlands, deforestation, soil erosion, encroachment into marginal lake shore and riverine ecosystems, point and non-point pollution, and 1959 Nile Basin Treaty.

Chapter Five

Critical Analysis

Introduction

The analytical frame work formulated for this study in Chapter One was based on the argument that in analyzing diplomacy and security issues it is necessary to examine more than one actor. Chapter One analyzed the background literature to Nile basin, methodology and theoretical framework, Chapter Two examined intellectual development of security in the international system and environmental security while Chapter Three examined diplomacy, types of diplomacy and emphasized on track two diplomacy in the Nile basin. Chapter Three made effort to distinctively differentiated track two diplomacy from other forms of diplomacy, finally Chapter Four examined environmental security in the Nile basin.

Chapters Two, Chapter Three and Chapter Four examined themes that were of concern to this study. The themes highlighted a number of issues concerning track two diplomacy and environmental security in the Nile basin. This chapter will pull all these and other issues together in a critical assessment of track two diplomacy in environmental security in the Nile Basin. Furthermore, the critical analysis section in this chapter will utilize the objectives raised in Chapter One to examine how they help the study to navigate to its hypothesis[1].Chapter Five will therefore sum up all discussions raised and critically address main issues of the previous chapters, all this will be done against the backdrop of the theoretical frame work that was proposed in Chapter One of this study.

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[1] See, Chapter One.

This section will start by analyzing the theoretical frame work proposed in chapter one before analyzing issues of track two diplomacy and environmental security.

Theoretical Frame Work

Liberalism theory is used in this study as a guide to demonstrate that cooperation is important when issues of security are being considered. Liberalism theory argues that cooperation and compatible goals are often blocked by misconception, misperception, lack of understanding and weak political structures which create antagonism or false conflicts among states, this factors are the main ingredients for conflict. Liberalism theory also recognizes the role of non state actors in state activities and particularly in pursuing collective security[2]. it argues that, diplomacy should involve all actors in the conduct of international relations, according to this theory security for one state is considered as security for all, further more when states pursue collective security, they compliment and accept responsibility for other states[3].

Liberalism advocates for international and regional institutions, and says that they are important components in securing security and cooperation[4]. Cooperation is necessary among the Nile riparian states on water use. Commenting on cooperation, Frey observes that shared water resources are important issues to be left just to states or track one actors alone[5]. When Frey made this dictum he perhaps had in mind the fact that water use can degenerate into conflicts if prevailing sharing arrangements are unequal or favor one side more than the other. It is on this premise that liberalism theory was considered as the most appropriate approach for this analysis.

[2] J.S Goldstein, Introduction to International Relations, op, cit.
[3] P.A Reynolds, 1995, *An Introduction to International Relations*, Third Edtion, Longman, p 77.
[4] ibid
[5] F. W. Frey. The Political Context of Conflict and Cooperation Over International River Basins. *Water International*. Vol:18: No:54, 1993. p 7-68: 14.

This chapter will start by analyzing issues under the theme of track two diplomacy and later examine issues concerning environmental security.

Track Two Diplomacy

Montville describes track two diplomacy as an unofficial interaction between members of adversarial groups or nations to develop strategies, influence public opinion, and organize human and material resources in ways that might help resolve their conflict[6]. Montville's classical definition of track two 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 communications to influence public opinion in foreign societies[7]. In addition, Gilboa says that the mainstay of public diplomacy is the promotion of a country's national interests by providing correct understanding of its goals, policies and activities to the domestic and foreign audience[8].

These goals are usually achieved by dialogue with individual citizens and other groups and institutions within the country and abroad. By supplying the right understanding of a county's policy, public diplomacy seeks to reduce the degree to which misperceptions and misunderstandings complicate relations not only with other counties but also with domestic actors. Activities of track two actors in public diplomacy are

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[6] J.V Montvillle, The Arrow and the Olive Branch: A case for Track Two Diplomacy' in McDonald JW and Bendahman,DB, (eds) *Conflict Resolution: Track Two Diplomacy*, Washington: Foreign Service Institute, 1987, p.5-20.
[7] E Gilboa, "Media diplomacy: Conceptual divergence and applications," *The Harvard International Journal of Press/Politics Vol:3:*, 1998, p. 3-67:4-8.
[8] G.R Berridge, *Talking to the Enemy: How States Without Diplomatic Relations Communicate*, op, cit.

directed to influence foreign government and its citizens through information, culture and education programs[9].

Effective communication is vital to the promotion of state relations. However, the challenge facing Nile Riparian states is how to effectively utilize communication to promote cooperation and enhance environmental security. Communication is used here loosely to mean diplomacy but does not substitute it for main stream diplomacy. With this understanding effective dialogue according to Gilboa plays a vital role in cementing relationship between states that are in competition over particular interests[10]. Attempts to promote dialogue among Nile basin states are conducted through seminars and workshops. From the study research, it emerged that the paramount contribution of track two actors participation in the Nile basin is that they facilitate workshops and seek to enhance dialogue between states[11]. Montville says that the most powerful tool of track two actors is a series of facilitated workshops that bring together representatives of groups in conflict for dialogues that target relational transformation and the integration of the society. Such workshops, as Montville observes, this makes it possible to undermine negative stereotypes and give new life to relationships between parties[12].

Relations between states in the Nile basin states on environmental resources are uncertain[13]. Emerging challenges to states relations stem from competition for water, land degradation, water constrain, dumping of waste, competition over grazing pastures, deforestation and prevailing River Nile treaty. These issues create a scenario whereby

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[9] Ibid.
[10] Ibid.
[11] A. P Elhance,. *Hydro-politics in the Third World. Conflict and Cooperation in the International River Basins.* Op, cit
[12] J.V. Montvillle, The Arrow and the Olive Branch, op, cit.
[13] N El-Khodari, *The Nile River: Challenges to sustainable development.* Presentation to the River Symposium 2003.

track one actors are overwhelmed, have little or no experience in their regulation. Track

two actors therefore play an increasingly prominent role in initiating communication,

facilitating communication, participating in negotiation, monitoring and implementation

of projects that are aimed to reduce the chances of conflict among Nile riparian states and

promote cooperation in the use of resources[14].

During the survey, it emerged that lack of information is the major barrier to

securing an environmental policy among the Nile riparian states. According to Frey,

resources that transcend boundaries can not be pursued as solitary projects by individual

states[15]. But inadequate economic capacity to engage in joint regional projects, has seen

Frey's suggestion not realized at the state level. It is at this point that I.U.C.N, O.D.I and

the media have intercepted to facilitate workshops and promote public diplomacy among

the states. Other non state actors like N.B.S and I.S.S produces extensively well

researched policy papers that are used as guidelines to formulate policies by states and

mould relationship on cooperation between Nile riparian states.

The importance of cooperation can be appreciated by considering the situation in

the Nile basin. Prior to the formation of N.B.I collective cooperation and development in

the basin was constrained by disagreements in the supervision and management of the

Nile water resource[16]. Some states like Egypt and Sudan claimed responsibility of overall

supervision; on the other hand Ethiopia claimed that it should be given priority since 86

percent of the water comes from it is territory. In addition, other states in the basin also

claimed a share in the management since they contributed to the Nile resources. The

challenge at this point was how to develop a mechanism that will accommodate the needs

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[14] R.P Barston, *Modern Diplomacy*, op, cit.
[15] F. W. Frey. The Political Context of Conflict and Cooperation Over International River Basins, op, cit.
[16] www.nilebasininitiative.org

of all Nile riparian states without recourse to use of force. Hence, some initiatives for joint cooperation were adopted, these initiatives were mostly bilateral and trilateral[17].

Some of the cooperative initiatives were HYDROMET project from 1967 to 1992, in the Equatorial Lakes and the Technical Cooperation Committee for the Promotion of the Development and Environmental Protection of the Nile Basin (TECCONILE) which was started in 1993, focusing on development among all Nile riparian states[18]. In addition, the series of Nile 2002 conferences which started in 1993 and continued up to 2002 provided good forum for scientific discussions and dialogues on Nile issues. This initiatives had track two tendencies although they were track one projects, they paved way for full fledged track two actors to engage in Nile basin activities. Prior to the beginning of the above projects, non state actors were limited to facilitating workshops financially.

Financial facilitation was necessitated by the fact that, most of the Nile basin states are among the poorest states in the world, it was therefore hard for this governments to provide sufficient resources to service joint projects. Hence, non state actors like I.U.C.N and O.D.I engaged in this projects by facilitating workshops to discuss issues of cooperation[19], in Montville's terms, these initiatives were fulfilling the claim that, non state actors are most effective in organizing problem solving workshops. Apart from facilitating workshops, some non state actors are today involved in more active roles. The Institute for Security Studies carries out research on environmental issues, from the findings, they advice policy makers in governments on environmental

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[17] C.O. Okidi, 'History of the Nile and Lake Victoria Basins through Treaties', in *The Nile: Resource evaluation,*
resource management, Hydro politics and legal issues, P.P. Howell and J.A. Allan (Eds) 1990, p. 23
[18] Waterbury, J. Hydro politics of the Nile Valley. Syracuse, USA: Syracuse University Press. 1979, p.301.
[19] See, Chapter Three.

threats[20]. On the other hand the Nile Basin Discourse works to strength the voice of civil society in the development process of the Nile Basin, while promoting value addition to Nile cooperation and development process[21].

In addition to providing information, some organizations are literally in the field among communities. Overseas Development Institute has continued to play a role in encouraging pastoralist communities in North western Keya and North Eastern Uganda to reduce livestock numbers and frequency of migration. In return, the ODI buys cattle and sinks boreholes in these communities. This is the case in Moroto and Kotido in Uganda where Karamajong nomads reside.

Although track two actors lack sovereign powers[22], they have been able to promote continuous dialogue among the Nile riparian states. Track two actors of diplomacy encourage people who depend on the Nile waters to use the Nile resources in a sustainable way. In addition, they emphasize the common interests of all relevant actors in the protection and preservation of the water resource rather than concentrating on the competing interests of Nile riparian states.

The media has enhanced public diplomacy in the Nile basin, for instance in June 2010, some Nile riparian states demanded for the 1959 treaty to be revoked, so that all states can exploit Nile waters[23]. Egypt has before threatened to go to war with any country among the riparian states if they interfere in the Nile waters. But the increasing role of media during this time played a positive role in promoting understanding among different actors in the Nile basin states. For instance, on June 28 2010 when East African

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[20] ibid
[21] ibid
[22] J.S Goldstein, *Introduction To International Relations*, op, cit.
[23] Daily Nation, June 29th 2010.

States 'revoked' the 1959, an on line blog called east African politics, Nation news paper, the Daily monitor and Mwananchi newspapers, carried stories and debates that ran for approximately one week, the debates engaged communities from the Nile riparian states.

The media promoted dialogue and acted in principle as a dominant agent of public diplomacy[24], here, the media acted as a bridge between states and this paid off as its role to initiate negotiation between states succeeded. During this time, individuals representing different organizations could contribute in the media on different topics. From the various discussion that were on media, it emerged that most people were in favor of Nile riparian states engaging in dialogue before revoking the treaty[25]. On July 2nd 2010, Egypt subsequently held a conference in Cairo, this conference brought together representatives from all Nile riparian states, it can be argued that although Egypt had early claimed that it would go to war, it did not, the media played a role in informing the governments of either state about attitudes of each other and as a platform for conduct of public diplomacy.

The role of media on public diplomacy can best be analyzed by considering Gilboa's description. He argues that media operates in three shades namely, basic variant, non state transnational variant and the domestic public relations variant[26]. Basic variant argues that the media can be used to win critical battle for the minds of people in countries with hostile governments, by creating a favorable image for a countries policies, actions, political and economic goals. For instance, during the cold war, United States of America and Russia were in constant competition and utilized the media to

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[24] E Gilboa, 'Diplomacy in the Media Age: Three Models of Uses and Effects', *Diplomacy and Statecraft*, Vol:12, 2001, p. 221
[25] www.eastaffricanblog.net/ accessed on 21 July 2010.
[26] E Gilboa, 1998 "Media diplomacy: Conceptual divergence and applications, op, cit.

influence opinions of their target states by using Voice of America and radio Moscow respectively.

Non state variant argues that, within the international systems, non state actors can utilize their power to promote relation between states[27]. For instance, during the apartheid period in South Africa, dissident non state actors pitched campaigns through the media to overcome apartheid. This was successful because, the media helped them to create links with other groups particularly in Europe and America, this groups, acting at their capacity as domestic constituents were able to influence their governments to recognize anti apartheid groups in South Africa and as a result of media intervention, western states involvement helped to overcome apartheid.

The domestic public relations variant, argues that a government should hire a public relations agency in the target group in order to achieve its goals[28]. This is because when a government hires an agency, it can conceal the real force behind it. It is possible that a local agency can know best how to achieve goals, how to identify weakness and deal with them effectively. This is important for instance in situations where two sates have come out of war[29]. For instance after Iraq invasion ended in 2003, the United States had arguably damaged her international reputation among the Muslim states, some of which are important key partners of development and security. Since it may not feasible for United States to operate a public diplomacy office in all Muslim states, the best option of recovering her image was to hire local based firms in theses states to carry out the role of public diplomacy.

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[27] Ibid.
[28] ibid
[29] M Dayan, Breakthrough: A Personal Account of the Egypt–Israel Peace Negotiations. New York: Knopf, 1981, pp 32-36.

Increased awareness, complexity and severity of Nile basin water resources has led to increased regional cooperation, as a result, states have today embraced the roles of track two actors and incorporated them in the management of Nile basin issues, The participation of track two actors enhances the ability both in technocratic and political terms. Raustiala observes that non governmental organizations play an increasingly important role in environmental institutions participating in many activities like negotiation, monitoring and implementation[30]. Kehohane supports this view and says that non governmental institutions are distinctive entities with important skills and resources to deploy in the process of international cooperation[31]. For instance the inclusion of research institutions like, International Water Management Institute for Nile Basin and Eastern Africa, FRIEND NILE and I.S.S provides policy advice to states, helps monitor commitment of individual states, minimizes ratification risks, and facilitate signaling between governments and constituents[32]. In summary, track two actors are a regular part of cooperative process in the Nile basin, through the above roles, they often reach publics that states would not have reached. In addition, they provide services which include the following.

Monitoring State Commitments

In practice the doctrine of sovereignty creates barriers to intrusion into domestic affairs of states from others[33]. States are resistant to information gathering within their borders by other states or in some cases by international institutions. Ohmae argues that rather than undermining state sovereignty, active participation by non state actors

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[30] K. Raustiala, 'States, NGO's and International Organizations', In *International Studies Quarterly*, 1997, Vol: 41, pp. 719-740:719.
[31] R. Keohane, P.Haas & M. Levy, *Institutions of the Earth*, Cambridge, MA: MIT Press, 1993, p. 12-14.
[32] See, Chapter Three for details on the Track Two Institutions.
[33] H.J. Morgenthau, *Politics Among Nations*, op, cit.

enhances the ability of states to regulate globally, he says further that, track two participation has been structured across time and functional areas to reap this gains[34]. As a result, it emerged during this survey that states that fund non governmental institutions rely on Track Two actors operating in Nile basin states for information on activities in these states. Since states are not open to share information, this organizations act as non official diplomatic agencies that gather information for funding states.

The above development is a positive indication, information gathering for instance on security issues helps to balance power among neighboring states and adopt measures that are tandem with each other. According to I.U.C.N when for instance, information gathering on environmental issues has helped Nile basin states adopt similar measures to regulate them, for instance when Kenya banned use of plastic bags, I.U.C.N used the ruling as a platform to encourage Uganda and Tanzania to ban the use of polythene bags in their countries, I.U.C.N succeed in lobbying the Ugandan parliament to pass a law that banned use of plastic bags in Uganda[35].

In relation to the above, there is coordination between The World Bank and IUCN, the World Bank, through the Green Environmental Facility (GEF) sponsored projects, provides funds for states to recycle plastic wastes that are dumped along the river Nile, this reduces the acceleration of land degradation in urban centers like Jinja Uganda, Kisumu Kenya and Mwanza Tanzania[36]. Another project funded under the GEF is the Friends of the Lake Victoria, this association monitors effluent that is disposed to lakes and rivers by commercial industries and reports them to the National Environmental Management Authority (NEMA).

[34] K. Ohmae, *The Borderless World*, New York, Harper Business, 1990, p.5.
[35] www.iucn.org/eastafrica/enviorment/accessedon 26-July 2010.
[36] World Bank Report, op, cit.

From the above it can be argued that, the contribution of track two actors in this situation provides track one actors with incentives to comply in sharing information. This also stumps authority for Wilson's first point that covenants should be done in public. A vivid example to illustrate this can be described for instance considering that water use in Egypt and Sudan is enshrouded by secrecy[37], Egypt and Sudan have routinely lied on the volumes of water withdrawn and distorted the information of water volumes they receive in order to stick to the volumes in the prevailing treaty.

Within the Nile basin, track one actors have been dominant on state security issues. The dominance of track one diplomacy was based on the fact that, since the creation of modern state system, governments have dominated the conduct of state relations. The need for power and protection of national interest historically set out states to engage in crude means to get their interests or to protect them[38]. Nevertheless, track two actors have been engaged though in minimal roles but of huge significant such as economic facilitation[39]. In addition, the areas of engagement by track two actors go to extent of encouraging cooperation between states to promotion of human security, and mitigating environmental threats.

Track two actors in environment are open in the way they conduct their affairs, they are non-hierarchical, and liberal in ideology[40]. Those attending to Nile issues have a regional perspective of issues and problems facing Nile riparian. Track two actors are arguably more efficient and suitable to work for environmental security than state actors, as they are less visible, less expensive, more flexible, less constrained by narrow

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[37] Haggai Erlich, *The Cross and the River: Ethiopia, Egypt, and the Nile*, op, cit.
[38] J. K. Holsti, *The State, War, and the State of War* . Cambridge, Cambridge University Press, , 1996, p 63.
[39] World Bank 2005, Nile Basin Initiative, Shared Vision Program, op, cit.
[40] T, Princen Finger, *Environmental NGOs in World Politics*, op, cit.

mandates, and are able to talk to several parties without losing their credibility and to deal directly with the grass-roots population[41].

The strength of track two actors lie in establishing grassroots participation and holding multi stakeholder dialogues, bringing on the ground research perspectives into environment security[42]. Track two actors represent an unprecedented opportunity to develop the waters of the river and the environment within the basin to optimize the benefits available to all countries. This has significantly advanced social economic development within all basin countries while helping to reduce conflict and insecurity.

From the survey, it emerged that there was lack of awareness and concern for environmental issues as well as the risks and uncertainty involved in sustainable development challenges among the ordinary publics. This is because, most of the populations living in and around water basins, are not aware of individual rights to security, World Bank Report of 2007 concurs with this statement, it reported in part that, urban areas are most prone, pollution of water is rampant despite the fact that non governmental organizations are dominant in urban centers[43]. Conflicting interests are also an important underlying cause of unsustainable practices as is evident in the expansion of large scale agricultural schemes in some Nile Basin like Uganda and Sudan.

Universities with programmes on environmental studies are key contributors to the development of information, capacity for participation and innovative solutions that are needed in the Nile River Basin[44]. One such recent initiative was the formation of the Nile Basin Environmental Education Lecturers Network and Nile Basin Universities

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[41] ibid
[42] T. Princen. Finger, *Environmental NGOs in World Politics*, op, cit.
[43] World Bank, ibid.
[44] Personal Interview With Ruth Namanve, Nile Basin University Forum.

Forums[45]. This network seeks to enhance the capacity of universities in the countries along River Nile to share information on environmental education courses and collaboratively to develop courses and learning support materials, that will sensitize all students, scholars and policy makers alike on the importance of preserving the environment in the Nile basin and minimizing threats.

Environmental education initiatives thus need to take into account not only information but also investigative orientations on the changing trend of environmental security in the Nile basin. There is need to involve different groups of students at different levels of study and equip them with competencies to make contributions to the growth of environmental security studies. A baseline survey conducted by the International Institute for Water Education, in late 2004 revealed that tertiary institutions of learning offer environmental education courses at various levels including, certificate, diploma, degree and even master's level. Stand alone environmental education courses however were rare, in East Africa Region, only Makerere University in Uganda and Ahilia University in Sudan offered an Master of Science course on environmental education[46]. There is need for education institutions of higher learning to offer environmental education as a course within environmental science.

During the survey, it was found out that, the Nile Transboundary Environment Action Project's (NTEAP) through its arm of Environmental Education is mandated to increase capacity within the basin through[47]. NTEAP encourages interaction between students and lecturers, and promotes development of a regional Environmental Education course and modules framework for national universities to adopt across the region.

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[45] Nile Basin University Forum, Kampala, Uganda.
[46] Report by Nile Basin Society, Presented on March 2008 During the World Water Week.
[47] www.nilebasin.org.

Rural electrification would save a lot of the trees that are presently used for cooking, which has led to severe deforestation in the country in general and in the Blue Nile basin in particular. Canadian International Development Agency CIDA and World Bank (WB) gives grants to people to pursue other sources of energy.

It has been increasingly recognized among the riparian states that cooperation on development and management of the Nile water resources can yield more benefits from river basin[48]. The assumption here is that shared environmental resources can actually provide the basis for cooperation and sharing of benefits, provided that the threats to the security of the environmental resources are objectively recognized and institutional structures for collaboration are created[49]. Track two diplomacy provides a unique forum for the countries of the Nile to move towards the cooperative process to realize tangible benefits in the basin and build a solid foundation of trust and confidence.

From the above, it can be argued that environmental security is not an isolated venture for one particular actor to pursue and attain, but rather, it is a front that demands input from all stakeholders or actors. For instance, states are responsible for planning of infrastructure in urban centers, often when they plan, they have commercial interest at the back of their mind, there is need for states to consult and engage non state actors who have knowledge on urban planning. Also, there is need for pastoralist to be informed and be convinced that this long tradition of owning large herds of cattle and migrating is not appropriate anymore and is challenged by urbanization, globalization and population growth.

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[48] N El-Khodari, 2003 *The Nile River: Challenges to sustainable development,* op, cit.
[49] J MacDonald,' Further Exploration of Track Two Diplomacy' in Louis Kreisberg, (Ed) *Timing The De-escalation of International Conflict,* Syracuse, Syracuse University Press, 1991, p. 214.

In diplomacy, track two actors can be present in more than one state, it is on this basis that this point proposes the need for a collective environmental security institution which will facilitate the securing of environmental issues across states, from the research study. Currently each state in the Nile basin acts in solitary when pursuing environmental security issues within its boundaries, yet resources in the basin extend beyond political boundaries. Lack of an overreaching institution is therefore one main reason for absence of an environmental security strategy. This claim ascertains the liberalist assumption that the state is not in anarchy, conflicts are not found within a state, liberalism further argues that the population is not the problem but the abstract state which is in competition to survive, remain sovereign and gain security[50]. An existing regional institution will provide ideal platform for sustaining environmental security. Unfortunately, there is no regional institution that has membership of all Nile riparian states.

Finally, it can be said that the Nile is endowed with rich natural resources and hold huge opportunities for win-win situations among Nile riparian states. Cooperation between Track one and Track Two diplomacy can enhance food production, energy generation, and other related development openings. Since the inception of track two actors, chances of Nile riparian countries benefiting from cooperation have increased. Cooperation in the Nile Basin is, a result of inter state dialogue, coordinated by non state actors.

Environmental Security

Environmental security aims to prevent or manage conflicts over scarce or degraded resources to ensure that people who depend on them utilize them mutually for

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

collective benefit[51]. Collective gain in this sense is tandem with the liberalist claim that state goals can be compatible with each other in order to have joint gains. However, in the Nile basin, environmental security has not been secured, this is because, Environmental resources in the Nile basin are degraded, constrained and unequally shared among the states. The scale of balance between environmental security on one hand and liberalist tenets on the other can be conceptualized by attempting to fit the Nile basin into Homer-Dixon's model of environmental conflict. In Homer-Dixon's terms, environmental conflicts are induced by demand, supply or structural scarcities. Demand induced scarcity results when population grows and resources are kept constant.

Most Nile basin states have not embraced environmental threats in the same level as physical threats. For instance, a report by Institute for Security Studies (ISS) said that cattle rustling has been increasing at a rate of 2.5 percent in the last two decades[52], a report by U.N.E.P said that grazing pastures have been decreasing in the same area at a rate of 2.3 percent in the last two decades[53], both of these issues raise concern for states to cooperate in liberalist terms and mitigate consequences before they escalate into national security threats

The main issues of environmental security identified in this study include, land degradation, population growth, water pollution, deforestation, loss of drainage, poverty and the treaties regulating water use in the Nile basin. The following section will open by critically examining environmental security in the Nile basin. The extent of environmental threats in the Nile basin affects the distribution and use of natural

[51] R.P Barston, *Modern Diplomacy*, op, cit, p 192.
[52] D. Mwiturubani, Environmental Security in Uganda, op,cit.
[53] United Nations Environment Programme, 2007, *Water Security in Sub-Saharan Africa*, New York, Page Publishers, p.137-143.

resources, which in turn affect the quality of life for human population and animals, furthermore, environmental threats degrade the environment, destroy habitats and biodiversity, reduce forests and destroys water sheds that feed into the Nile basin.

There is need to formulate policies which can break the chain of security bureaucracies. Judging from the current states of affairs it can be argued that these policies are unlikely to come from the state, governments have failed all this years to regulate environmental security threats, partly because environmental degradation does not factor as a serious consequence threatening national security. There is need for other actors to chip in and contain these recurring conflicts that emerge because of environmental security and this will prevent them from escalating into full blown conflicts in the future. This will go along way in ascertaining the liberal claim that states are not the only actors in the international system[54].

For all states are to cooperate, there is need for states to adopt an institutions approach to environmental security which in this case will help to focus attention on the ultimate beneficiaries of security. According to the human security report of 1994, these beneficiaries are not states but individuals[55]. An institutional approach will ensure that all riparian states can benefit from the Nile water resources in ways that do not depend on water directly. Most environmental threats among Nile riparian states have similar characteristics, for instance, states have high rates of poverty, pollution, development, conflicts and similar levels of land degradation[56]. The main challenge facing them is that, all this states approach environmental issues within the confinement of state boundaries; this not only limits their scope but also denies states an opportunity to preserve global

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[54] J.S Goldstein, op, cit.
[55] See, Chapter Two for more details on Human Security Report.
[56] ibid

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commons of this nature. There is need for states to realize that environmental security is not a preserve for one actor or one state and neither can they be achieved within state borders. Nile riparian states should formulate a communication strategy on environmental security that would be both internal (among state actors) and external (targeting non state actors) to raise awareness on the extent and status of environmental security threats especially among the local communities.

From the study research, it emerged that most environmental threats emanate from urban areas, urban areas in most Nile riparian states lack capacity to detect, enforce and even collect data on environmental security[57]. Most urban centers don't have capacity to sustain environment programmes and it is not possible to have them soon. Hence, there is need for sharing of information to enhance participation for environmental security between the civic authorities in towns and publics. There should also be public participation to encourage, detect and promote environmental security. During the research, it emerged that publics had no formal basis for presenting environmental needs; this was the case in Uganda and Kenya among the communities that neighbor the lake region. Of importance is the need to involve the general public, public education should be used to emphasize the need for preserving the environment and practicing of methods that preserve the water resources.

The scope of environmental degradation that started in a few East African countries is likely to spread far beyond the region, drought in Ethiopia and environmental crimes in Tanzania and Uganda causes economic hardship not only for its populations alone but affects the volume of water in the Nile River . Drought and floods

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[57] D.Mwiturubani, *Nature and Extent of Environmental Crime in Kenya*, op, cit.

are the major causes of food shortage in Ethiopia[58]. Both are exacerbated by environmental degradation which includes deforestation, water pollution, soil erosion and desertification.

Thus, whereas the drought affects the people of Ethiopia and their agriculture production, overtime the geographical distribution of risk and vulnerability is likely to shift to other areas of the Nile riparian states. In conclusion, when food shortages arise from environmental change but not from incompetent government economic policies as is arguably the case among the Nile riparian states, then this reflects a vivid example of environmental security.

It will be argued that, the prevailing treaty which regulates water use in the Nile favored Egypt and Sudan to the detriment of other riparian states. Hence, in the absence of a fair treaty tensions are certain to rise as population grow and demand for water increases. Egypt depends on the water that flows from other states into its territories for its survival[59]. The demand for water can lead to regional conflicts and tensions; water becomes a matter of environmental security if states seeking energy security adopt energy sources for example hydro power that can have major environmental impacts[60].

Water resource management in all riparian countries is influenced by social, political and cultural aspects, as well as by economic considerations. Regional cooperation can make better use of the comparative advantages of the three countries but

[58] World Bank Report, op, cit.
[59] G. Dabelko and David Dabelko, 1985 *Environmental Security: Issues of Conflict and Redefinition*, in Woodrow Wilson Centre, Environment Change and Security Project Report 3, p.8.
[60] Richard Ullman, *Redefining Security*, op, cit.

water cannot be allocated between the three countries purely according to the highest economic return rate, as this would cause social and cultural disruption[61].

The failure on the national level to unilaterally implement projects consuming vast amounts of water has prevented the international conflict from escalating, but has not solved the conflict. The slow unilateral national progress seems to have been an incentive to encourage international cooperation. Internationally coordinated development of water resources using international financial support will support national water development, especially in the upstream countries. Success in international cooperation is not primarily important to avoid violent environmental conflicts, but rather to ease long-standing international tensions and support national development. International cooperation between track one and track two actors can thereby help mitigate poverty, unemployment and environmental conflicts on the national and regional level.

If they cooperate, the Nile riparian countries can get both physical and non physical security benefits from cooperation. Physical benefits include hydroelectric power production, irrigation, flood control, supply-side projects and watershed management projects, non physical benefits include freedom from hunger, reduced conflicts and better health. On the other hand, the difference between water withdrawn, consumed and efficiently used is the key to national water management in the Nile basin[62]. Water withdrawn is not equal to water consumed. Neither is water efficiently used equal to water withdrawn. In other words, while Ethiopia withdraws more water, minimizing consumption, and Egypt uses water more efficiently, minimizing the amount

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[61] Peter Mwaura, Daily Nation Newspaper, op,cit.
[62] F. W Frey, The Political Context of Conflict and Cooperation Over International River Basins, op, cit.

of water it needs to withdraw. The development of the industrial and service sectors in the long term eases the pressure on the finite resources of the Nile.

Land degradation

Among Nile riparian states, land degradation is arguably seen as an independent source of insecurity and interpreted as a symptom of societal failure which has potential to generate to security threats. Issues concerning societal failure manifest themselves in authoritarian rule of some states that lack political organization in the Nile basin like Ethiopia, Somalia, Sudan, Uganda and Congo, also in poverty stricken states like Burundi and Congo and in states with excessive consumption of environmental resources for development, like Tanzania, Kenya and Rwanda[63]. Land degradation can be attributed to lack of regional cooperation and minimal access of non state actors from environmental issues.

Ideally, the threat of land degradation should not have a major impact on environmental security, however during the research study, it emerged that, parts of Southern Sudan, North western Kenya, north Eastern Uganda and South western Ethiopia, where people are prone to long periods of droughts, land degradation pose serious changes on security[64]. Most people in these regions are nomads who migrate from one place to another with their animals, they are forced to move frequently with animals often to same places where they can get pastures, in the process the animals tramp upon the vegetation and this loosens top soil, eventually when it rains, the soil is washed down stream increasing soil erosion and degradation of soil quality. The soil which is washed down hill and deposited in rivers, when this happens over a long period

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[63] See, chapter two.
[64] World Bank Report, op, cit

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of time, rivers reduce their carrying capacity, in extreme cases silt deposits divert rivers from their natural course. As a result when seasons of heavy rain start, water floods are unable to determine their natural course, as a result, the floods drain over dry lands causing further damage to land, vegetation and soil fertility.

In Homer-Dixon's terms, the above situation creates a supply induced scarcity[65]. The effect of rain water from the above situation depletes and degrades the environment off its capacity to produce. Although this has been a regular occurrence, states have failed to come up with plans which for instance, which will help to harvest water and use in the dry seasons. The irony of rain water here is that, when it rains, water depletes the environment creating a surplus conflict and when the dry season sets in, creates a demand induced conflict.

Population Growth

Homer Dixon says that when population growth increases and the resources are kept constant, it results to a demand induced scarcity[66], As population increases, the competition for resources also increases. This is the case in most states in Nile basin states, to strike a balance between the two, the people living along the Nile basin need to diversify the source of natural resources, for instance, energy sources. To develop capacity for doing this, there is need for non states actors engaged in development to engage locals, for instance, World Bank funded Green Environment Fund, provides funds to communities along lake Victoria to engage in other economic activities other than depending on water resources[67].

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[65] T. Homer-Dixon, op, cit
[66] T. Homer-Dixon, op, cit
[67] World Bank 2005, Nile Basin Initiative, Shared Vision Program, Regional Power Trade Project, Part 1, 2003, World Bank report.

Due to population growth grazing pastures have deteriorated leading to conflicts. The rampant cases of conflict among the pastoralist communities living in Moroto and Karamajong region in Uganda, Jabal, Lotuke and the ILEMI triangle in Kenya-Sudan border are a prove of how population growth, and demand for grazing pastures among the pastoralist communities stimulates demand scarcity[68]. Although state actors are aware of demand induced environmental threats, they have not done enough to control them. Failure can be attributed to internal conflicts that are more physical among states and incapacity of states to address non physical security issues. Internal threats undermine state efforts to address non physical security threats, states also concentrate on internal threats and tend to address them at the detriment of environmental threats. In the same breath it can be argued that for environmental security issues to be considered in the same magnitude as physical national threats, states should cooperate and understand the security needs of individuals as paramount to those of the national security.

Poverty

The U.N.D.P report estimates that about 160 million people depend on the waters of the Nile for the survival, security efforts by states to secure the needs of individuals as per the requirement of U.N.D.P are far from being realized, in addition, five of the ten Nile riparian states are classified among the poorest in the world[69]. Poor states in this sense are inclined to protect national security of the states from external threats, while internal non physical threats are not considered as being important security needs.

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[68] See, Chapter Two for more Details
[69] www.undp.org

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Poverty among communities living around the Nile basin has forced people to cut trees for firewood and clear forest for farming. This trend confirms Homer Dixon's view that poor countries are generally more vulnerable to environmental change than rich countries, therefore environmental threats are likely to arise fast among developing states[70]. North Eastern Uganda and other areas where resource conflicts are prevalent are among the poorest regions in the Nile basin and has remained so since independence, the levels of poverty, compounded with population growth form a fabric of environmental stimulated security threats[71].

In summary it can be argued that environmental security in the Nile basin will be better addressed when track two actors are flexile enough to provide for the involvement of states and non state actors[72]. At the moment, it is a fact that most Track Two actors are funded by states, this in turn limits their capacity to some extent in executing their work, because at the back of their role is the need to reflect the desire of the funding states. It is important to have common principles among the track two actors; this is because, by identifying common goals, principles may promote the reshaping of previously competing interests through the processes and procedures established by the regime. on the other hand, national security in most of the Nile riparian states is conservative, limited, heavily focused on military threats and challenges, secretive, and power oriented, it also tends to focus on short term problems. Culturally, such security communities are among the least likely to embrace environmental considerations.

[70] T. Homer-Dixon, 1993 *Global Environmental Change and International Security*, in Dewitt D. et al, p 188.

[71] P Collier, 'Natural Resources and Conflict in Africa' *Crimes of War Project*, 1999-2004, Vol:10, No: 1, 2000, p 231.

[72] J MacDonald, 1991, 'Further Exploration of Track Two Diplomacy' op, cit.

Track one institutional capacities in Nile Basin countries in the field of environment are weak in terms of both resources availability and political priority. While there is a growing public awareness of environmental issues, public involvement in environmental decision making and transparency of environmental information are rather limited. Integrating environment into conflict prevention strategies can allow states to improve the administrative capacity to develop and implement environmental policies, manage environmental security concerns and engage non state actors in the process. Furthermore, strengthening institutions and civil society helps countries better prepare for a closer relationship within the East Africa Community.

Finally, greater involvement of local non governmental organizations is important because it increases the sense of local ownership of conflict prevention initiatives. While environmental conflict initiatives are conducted with state consent and welcomed by Nile riparian states for bringing additional funds, they are still designed by outsiders and local citizen's influence on allocation of funds is very limited. Lessons learned in conflict resolution and development communities over time suggest that ownership and local participation in achieving peace and development make results more sustainable and stakeholders more content with outcomes. To conclude, linking environment and security in the Nile basin states enables further strengthening of institutional capacities and information exchange and cooperation among environmental non stat actors. It also empowers and interlinks citizens to have a better chance of responding to environmental security challenges in the future.

In conclusion, environmental cooperation should be used as a confidence building tool to improve inter-state relations. Joint projects and new institutional

cooperation procedures make interstate relations more predictable as they establish a communication channel to resolve eventual policy differences and rebuild contacts between governments and civil society. On the other hand, understanding and managing environmental threats is central to human security and well being, and it is a building block of sustainable peace and sustainable development. As such, the environment security nexus in Nile basin states will reaffirm Principle 25 of the 1992 Rio Declaration stating 'peace, development and environmental protection are interdependent and indivisible.

irrigation, population control, and enhance the development of hydro electric power which could greatly reduce deforestation. The Kenyan model of rural electrification can be a model for other Nile riparian states, if the bureaucracy was reduced.

The economic and cultural destinies of approximately 300 million people are bound to the Nile river and its tributaries, with so many interests vying for such a sprawling region the Nile will continue to be a source of contention. But it is not so much the amount of fresh water that is available to the Nile basin states that makes it scarce, but rather it is uneven distribution and inappropriate usage coupled with deforestation, pollution, overgrazing and desertification. Environmental threats are a result of individuals' pressure and not the state, the state is abstract.

For the environmental component of comprehensive human security for the Horn of Africa to be tackled with any hope for success, the ecogeographical region must be accepted by its occupants as a unit of shared concern. Any political or other enmities within the region, whether it is between states or clans, must be laid aside difficult though this may seem is necessarily shared struggle for common security.

Looking beyond environmental threats, there is now increasing acceptance that the underlying causes of environmental threats are often related to institutional, governance, awareness and capability issues. Inappropriate or non existent policy is also often cited a cause of unsustainable practices. For example, policies that promote economic growth without adequate land use planning and pollution legislation can lead to concentrations of economic activity, congestion, and pollution.

On the theme of track two 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 states who, in their pursuit of individual gain, often destroy shared environmental resources. Regional cooperation is required to address transboundary environmental problems. Cooperation must rely on non state actors.

The fear of states to incorporate non states actors stems from the fear that the inclusion of non state actors comes at the expense of state power. As states in concert expand and coordinate their regulatory powers, they should incorporate non state actors in the management of issues within the Nile basin. The terms of track two actors participation reflect the resources and skills as well as the political and technocratic incentive they possess. Although the long term participation of track two actors in the Nile basin is not clear, their participation eases political pressure and enhances the ability of states to create and maintain regional environmental security rules.

But such participation can bring with it dangers of missed opportunities, slower and more complex control of security issues by states. The fear here is that if track two actors are befitted with the responsibility to manage environmental security, it is possible that heir 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 environmental issues may present a Pandora box that track one 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 track two diplomacy in environmental security in the Nile basin is a wide topic to be accommodated within this limited space of study and time, the author accepts any

shortcoming on areas under study that were not exhaustively examined but does not

admit to any shortcoming.

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